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MARITIME MEDICAL NEWS

A MONTHLY JOURNAL DEVOTED TO MEDICINE & SURGERY

HALIFAX, NOVA SCOTIA.

Vol. XXI. MARCH 1909. No. 3

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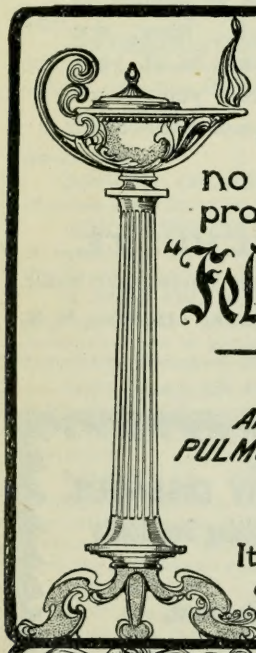

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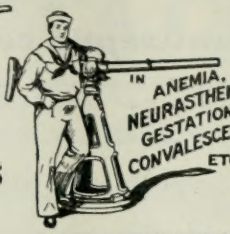

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VOL. XXI., *MARCH, 1909*, No. 3.

Fibrolysin Treatment in Deformities. In the *Lancet*, January 23, 1909, Dr. Bannatyne of Bath, recommends the use of fibrolysin in the treatment of deformities and contractions arising from chronic joint conditions. He says it is not of any use in acute cases, or while disease is active. It does not relieve pain but "does help in a most wonderful way in quiescent cases in allowing joints to be used which have for months and years been quite stiff.

Fibrolysin is a double salt of thiosinamin and sodium salicylate. It has been found useful in the treatment of Dupuytrens contraction of the palmar fascia. Dr. Bannatyne recommends the subcutaneous injection of forty minims twice a week. It may be injected into the arm, leg or loin. It is not advisable to inject it near a joint. It causes some pain and tingling, and in some cases a good deal of pain with redness and swelling. No bad constitutional effects have been noted. As a rule no improvement is seen until four or five injections have been given and from thirty to forty injections are generally needed. Along with the use of fibrolysin Dr. Bannatyne recommends baths and massage, and he says results are obtained which in his experience cannot be attained of any other means.

❖ ❖ ❖

Treatment of Epilepsy. In the *British Medical Journal* for January 23. 1909, there is an interesting note on the treatment of epileptics, by a salt-free diet, or rather by a diet in which the place of sodium chloride is taken by sodium bromide. The Bradford guardians separated the sane epileptics in their workhouse from the rest and set them to work, in the grounds, under the care of an attendant, with the view of improving their condition and making them useful. In addition, at the suggestion of Dr. Goyder, chairman of the Hospitals Committee, Bradford Poor-law Union, the sodium bromide treament, with exclusion of common salt, was instituted, to the exclusion of all other medicines. The treatment was decidedly satisfactory.

The guardians were however, much impressed with the belief that, if these patients were removed to the country, where they could live and work in the open air, no medicines would be required. The sane epileptics were accordingly removed to a house in the country, where they were pleasantly situated, and engaged in light out-of-door occupation, and all medical treatment was abandoned. It was found that the fits now increased. and grew progressively worse as time went on. Dr. Goyder made up his mind that this state of things and this test of "place" should be put an end to, and the dietetic treatment. in which sodium bromide takes the place of common salt was strictly carried into effect. The administration of the salt is not limited to a definite amount taken three times a day with meals. but the bread is made specially for patients, an equivalent amount of the bromide salt being used in place of the chloride. The result was a confirmation of the belief that this form

of dietetic treatment is useful. During a period of eleven months, after the removal of the patients to the country, no dietetic treatment was carried out. The number of fits increased steadily. With ten patients under observation during the month of January, there were in all 65 fits, and with nine patients in July, 90 fits, rising to 113 in October. In November the sodium-bromide and salt-free diet was restored. The number of fits in December, 1907, (nine patients) was 70, in February, 25, in March, 30, in May 13, in July 21; from the middle of August to middle of September, 9. and in the following month, 4. In April and in June the number rose to 59 and 40 respectively, and it was found that a careless attendant had neglected the sodium bromide. The result in totals, was that with an average of 9.5 cases per month, the eleven months without treatment gave a total of 898 fits, while the following twelve months with an average of 9.1 cases per month, the total number of fits was 317. In other words, the number of patients being practically the same, there were 581 less fits in twelve months, under the dietetic treatment than in eleven months without it.

❖ ❖ ❖

Surgical Bearing of Tuberculosis. There is a short but interesting article in the *Edinburgh Medical Journal* for month of February, '09, by Dr. R. W. Philip, on the "Surgical Bearings of Tuberculin." It was read in the Surgical section of the Congress on Tuberculosis at Washington. He draws attention to the very large number of tuberculous cases met with in all surgical clinics, and indicates the double rôle played by tuberculin in relation to surgical tuberculosis. It may, on one hand, anticipate operative interference, and even render surgical operation unnecessary. On the other hand it may prepare the way for the surgeon, by defining and limiting the area involved. As instances he takes cases of glandular tuberculosis. In some cases where few glands are enlarged the timely use of tuberculin may lead to resolution, and prevent the need for surgical interference. In others, where many glands are simultaneously involved and infection extends deeply,if operation is undertaken, it may be found impossible to dissect out the infected area. The use of tuberculin in these cases may so influence the disease that satisfactory operations may be carried out.

In localised tuberculosis of bones and joints, Philip recommends the introduction of the tuberculin directly within the affected area.

As an instance of benefit derived from the use of tuberculin in obscure cases, or in cases where operative procedure has been unsuccessful, Philip gives notes of a patient who had had a distressing discharge of pus from the rectum, amounting to several ounces per day. It had continued for nearly four years. The patient had had good surgical advice. Various operations had been tried and ultimately a laparotomy was done to aid diagnosis. There was no improvement. After two or three injections of tuberculin the patient felt better, and in six months, complete recovery had taken place, and the patient has continued well since then, a period of two years.

There is no variety of surgical tuberculosis in which Dr. Philip is more sanguine of good results than in cases of genito-urinary tuberculosis. In many of these, with involvement of bladder, prostate and kidneys nothing curative can be expected from surgical operations.

In all Dr. Philip's cases there has been improvement and in some, cure, For instance, in cases where life was

rendered miserable by frequency of micturition, a few injections have restored the bladder to normal order. In others, pus has been reduced, and tubercle bacilli have disappeared.

Dr. Philip has tried various tuberculins, Koch's original tuberculin, Koch's T. R., and more recently Béraneck's, and he has been very much impressed with the advantages of the last. He always begins with minute doses, for instance, of Koch's old tuberculin, 1-10,000 gram, of Beraneck's 1-10 cbc of a 1 to 100.000 solution. Dilutions are made with normal saline. Injections are repeated at intervals of from three to fourteen days, according to the nature of the case and the reaction. In many cases the daily estimation of the opsonic index has been made, but Philip does not consider this necessary, but that the dose can be regulated fully as well by clinical evidence, such as the temperature and general condition of the patient. It is especially necessary to begin with small doses when the surgical lesion is internal or associated with visceral tuberculosis.

❖ ❖ ❖

The Conjunctival Tuberculin Reaction. F. Smithies and R. E. Walker, Ann Arbor (*Journal of the American Medical Association*, January 2), have studied the conjunctival tuberculin reaction, with special reference to its safety and reliability, reviewing the facts as reported by others and giving their own observations. They point out the necessity for accurate records to obtain the best results; of using a proper preparation, of careful examination of cases before using the test, and of due protection of the eye from injury or irritation after it has been applied. Their conclusions are summed up substantially as follows: The conjunctival test, used as directed by Calmette and others, is convenient, rapid and inexpensive; can be used in febrile cases, is practically harmless when properly carried out and controlled, and, in the hands of the general practitioner, is as dependable as any other form of tuberculin test. It should not be used in patients presenting diseases of the eye other than simple conjunctivitis. Second instillations should be made in the opposite eye. Evidence furnished by this is dubious after the tenth day, if the suspected focus is not examined. Care should be taken to eliminate recent typhoid, colon infections, syphilis and acute infections such as diphtheria, sepsis and scarlet fever, and articular rheumatism. Patients who are receiving tuberculin subcutaneously for therapeutic or diagnostic purposes may be expected to react, frequently without regard to any active tuberculous foci. Prompt positive reaction generally means an active focus with good systemic resistance, especially in early cases. Delayed response, with feeble ocular changes, may be considered as of bad prognostic significance in both early and late cases. Severe conjunctival disturbances may result from reinstillation into the same eye, particularly in tuberculous individuals, and after the tenth day in others. Sensitization of the conjunctiva may persist for months and reinstillation give rise to violent reaction. This may be aggravated by synchronous or subsequent subcutaneous use of tuberculin.

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A Diphtheria Epidemic. In the *Journal of the American Medical Association* for February 6th Jessie W. Fisher gives the history of an epidemic of diphtheria in the Connecticut Hospital for the Insane, from April, 1907 to May, 1908. There were 92 cases altogether, 57 of them in employés and 35 insane patients.

The source of the infection in the first case was a visitor, and the second was possibly from an outside source; but the epidemic was clearly fostered by bacillus carriers, human and animal. Besides the 92 patients with clinical diphtheria, 95 apparently healthy individuals whose throats showed the presence of the bacillus, were also isolated, and for a longer average period (30.2 days) than that of the diphtheria cases (20.8 days). There were no fatal cases; all yielded readily to antitoxin. In an almost exclusively adult population, the disease showed a predilection for subjects under 30 years of age. Prophylactic cultures were taken in 4,081 cases, and 2.08 per cent. showed diphtheria bacilli. Inoculation for testing the virulence of the organism was done in only six cases, near the end of the epidemic. Three months after its subsidence, 506 more cultures were made from the throats of patients and employees, and 1.1 per cent. showed the Klebs-Loeffler bacillus, but in all cases the inoculations proved harmless to guinea pigs. This fact, together with the other fact that only 3 of the 5 tested during the epidemic were virulent, seems to indicate that probably about half the apparent diphtheria carriers would be found by inoculation tests to have only non-virulent bacilli in their throats. It would seem likely therefore that about half of the 95 individuals isolated as the result of culture tests, might have been spared the inconvenience had the laboratory force been sufficient to test the virulence in every case. Under the circumstances, however, the plan adopted was the only safe one. An interesting point noted was that rats frequenting the sewer from the isolation hospital, and the cats that preyed on them, seemed to carry the infection, cultures from their fur revealing the germs. The author's conclusions are summarized as follows: 1. The chief source of infection in this epidemic were latent cases (bacilli carriers), rats and cats. 2. One negative throat culture is insufficient for diagnosis. 3. Two and even three successive negative throat and nose cultures do not constitute sufficiently strict quarantine regulations to prevent the spread of diphtheria. 4. In institutions in which large numbers are congregated, at least four successive negative cultures, including at least two nose cultures are imperative. 5. All healthy individuals carrying bacilli in their throats should be isolated during a time of epidemic in institutions, unless wholesale immunization can be undertaken. 6. The isolation of bacilli carriers in private practice is neither reasonable nor expedient. 7. Bacilli carriers harbored the bacilli longer than did the clinical cases of diphtheria. 8. All hypertrophied tonsils should be treated, as a prophylactic measure. 9. The Neisser stain has distinct advantages over the Loeffler 10. Stained smears are of great value for immediate diagnosis. 11. The early diagnosis made possible by careful culturing, permitted of early treatment with antitoxin, undoubtedly diminished the severity of the individual case, and the severity and duration of the epidemic. 12. Of healthy individuals during the epidemic, 2.08 per cent. were found to be bacillus carriers. 13. When no epidemic existed, non-virulent Klebs-Loeffler bacilli were found in 1.1 per cent. of healthy individuals. 14. No virulent Klebs-Loeffler bacilli were found in 506 throat cultures three months after the epidemic. 15. Two weeks is the limit of immunization for 1,000 units of antitoxin

Abdominal Tuberculosis. Abdominal tuberculosis is generally considered a disease that develops insidiously, but D. N. Eisendrath (*Journal of American Medical Association*, January 23), points out that the lesions caused by the tubercle bacillus often simulate acute forms of disease of the abdominal viscera. Mayo has called attention to such acute onset in tuberculosis of the Fallopian tubes, and Eisendrath, in a previous article, has emphasized the fact that mixed gonococcus and tuberculous infection of the epididymis may be accompanied by very acute symptoms. The principal structures thus affected, however, are the appendix and the peritoneum. His attention was particularly called to these facts by an experience of a near relative who was taken suddenly ill while travelling in Switzerland and operated on by Kocher of Berne, who diagnosed the case as one of tuberculous appendicitis, due to the ingestion of butter containing tubercle bacilli. Eisendrath emphasizes the importance of this source of infection; the cream is apt to be the most intensely infected portion of the milk, and it is an ideal culture medium for the bacillus. He reports several cases of acute tuberculous peritonitis of his own personal observation, and others from various sources in the literature, etc. To 51 cases of tuberculous appendicitis, he can add 7, and of the total, 16 patients had symptoms resembling in every detail, acute appendicitis. His conclusions are the following: 1. A primary tuberculous appendicitis is not so rare an affection as was formerly thought. 2. Such an infection may be followed by secondary involvement of the ileocecal lymph nodes, which is out of all proportion to the pathologic changes in the case. 3. In the majority of cases there are evidences of tuberculous foci in the appendix, but secondary caseous lymph nodes may be found without visible macroscopic or microscopic tuberculous changes. 4. Butter, cheese and milk from tuberculous cows are the chief sources of infection in primary intestinal tuberculosis. 5. In a fair proportion (27 per cent.) of the 59 published cases of tuberculous appendicitis the clinical picture resembled that of an acute non-tuberculous appendicitis. No statistics are available to estimate the proportion of cases of tuberculous peritonitis which begin acutely, but the number is larger than is usually thought. 6. Through early diagnosis and radical removal of the tuberculous appendix and infected lymph nodes (so far as practicable) complete and permanent recovery can occur. Some of the cases of ileocecal tuberculosis and of tuberculous peritonitis may thus be avoided through removal of the probable starting point.

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Suture of Heart Wounds. In the same journal, under date Feb. 6, G. T. Vaughan, Washington, D. C., gives a historical sketch of the operative surgery of the heart and reports a case of successful suturing of a wound, one-third of an inch in length, opening into the right ventricle. Two rows of silk sutures were used and two bleeding points caught up and ligated with catgut. The pericardium was closed with a continuous catgut suture without drainage. He tabulates and analyzes the reported cases, and summarizes his conclusions substantially as follows: 1. There is no question as to the propriety of operation, since 35 per cent. of the patients recover, as compared with 15 per cent. (according to Holmes and Fisher, 1881) of recoveries after non-operative treatment of heart wounds—a gain of 20 per cent. 2. The mortality is practically the same as that of twelve years ago, when the operation

was first attempted, and it behooves the surgeon to study the matter and seek for some improvement. 3. The two chief causes of death are hæmorrhage and inflammation of the pleura or pericardium. Probably nearly everything possible has been done to prevent hemorrhage, but since more than half the patients who survive over twenty-four hours become infected, there is room for great improvement in this respect. 4. To prevent this, besides the observance of strict asepsis, the question of opening the pleura and the drainage of the pleura and pericardium must be considered of the greatest importance. 5. As a rule, therefore, the pericardium and pleura should not be drained. The article is illustrated.

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Tuberculin Treatment.

E. L. Trudeau, Saranac Lake, N. Y. (*Journal American Medical Association*, January 23), considers neither the vaccination nor the toxin immunization theories of the tuberculin treatment of tuberculosis entirely satisfactory, owing to our, as yet, imperfect knowledge of the mechanism of tuberculous infection, and especially of acquired and artificial immunity. If we must have a working theory, however, and must decide between the two, he prefers for the present to hold to the conception of an immunity that is principally at least antitoxin as produced by the treatment, and to consider tuberculin habituation its essential feature and the best guide to dosage. This does not lead us to expect too much, and is, he thinks, more in accord with what we observe clinically as the result of treatment, and explains its very evident limitations. It is in accord, also, with experimental facts showing that only vaccinations with living cultures produce any real immunity, and not those with dead germs or chemical products derived from cultures. Accepting thus the toxin immunization conception as the guide to treatment, instead of measuring the degree of a questionable antibacterial immunity by the opsonic index, or attempting to produce it more empirically by a series of moderate reactions, the severity of which we can not in any way control, the main features of treatment, he says, would be: 1. To raise the degree of tolerance to tuberculin to the highest point attainable in each case by an almost imperceptible and long-continued progression in dosage. 2. To avoid general and focal reactions as much as possible and to consider them as merely evidences of intolerance. 3. To follow no fixed rule as to the rate of increase or maximum dose to be reached, but to be guided only by the degree of toxin tolerance of each case as shown by the symptoms and general condition, whether the highest dose attainable be only a small fraction of a milligram or a cubic centimeter or more.

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Pyloric Stenosis.

James Spencer Brown of Montclair, N. J., says (in the *Medical Record* of January 23, 1909) that in most cases of gastric ulcer we do not have the typical picture, and therefore the diagnosis is not easy. The individual symptoms must be studied. Pain is present in all cases of ulcer, in forty per cent. of cancers early, and in one hundred per cent late. Anæmic dyspepsias and hæmorrhagic gastralgia must be differentiated from ulcer. Pain depends rather upon the individual than the position of the lesion. Hæmorrhage and vomiting are so common in stomach troubles that they are not distinctive signs. Dilation need be considered only when there is food stasis. Stomach analysis, chemical and physical, is our main diagnostic resource.

The routine to be followed in distention of the stomach is withdrawal of food eight hours after a meal, analysis after a test meal, microscopical examination of contents of fasting stomach, and microscopical and chemical analysis of fæces. Pyloric stenosis may be caused by spasm or may be organic. The size of the orifice does not account for the amount of food stasis, which must be explained by spasm preventing the chyme from passing out. Diseases of the pancreas play an important part in causing pyloric spasm. Cancer of the stomach may be cured by operation undertaken before glandular involvements, hence the value of early diagnosis. Chronic duodenal ulcer causes duodenal stenosis in most cases.

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The Eye of Yesterday and of To-day. Frank Valk of New York. (see *Medical Record* for Feb. 6, '09) indicates the ideas that were held in old times as to the eye, and then goes on to state the truths with reference to it that should be familiar to the general practioner. With reference to the prevention of ophthalmia neonatorum, he recommends the use of a modification of Credé's method in the form of a solution of nitrate of silver five grains, sweet spirit of nitre two drams, and water six drams, which is stable and gives a solution of nascent silver, which is most effective when used in the eyes of the new-born infant. Paresis of accommodation after diphtheria is seldom seen since the use of antitoxin, although formerly it was not infrequent. The author believes that the general practitioner should know the ophthalmoscope well enough to diagnose choked disc or albuminuric neuroretinitis. Photophobia always indicates involvement of the cornea; discharge from the eye, disease of the conjunctiva. In case of keratitis or iritis atropine will give relief and lessen destruction of tissue. Results in operative surgery have improved as the dark room has passed away. Glaucoma may be relieved by eserine or pilocarpine with iridectomy, and failure of sight limited. Squint is due to want of development of one lateral muscle. Shortening of the weak externus gives relief. Refraction should be done by a competent physician, since the fitting of glasses is not the only needed measure to relieve eyestrain. Hypermetropia and astigmatism will require correction as long as we use our eyes so much for near work. Every physician should have a test card, and every one be able to detect muscular imbalance.

EDITORIAL

MARITIME MEDICAL ASSOCIATION. THE dates first announced for the Charlottetown meeting of the Maritime Medical Association were found to coincide with those fixed for the Sydney meeting of the Medical Society of Nova Scotia, and in consequence new dates have been selected for the Maritime Association meeting, viz.: July 14 and 15. The Nova Scotian Society will meet one week earlier. The Committees are busily engaged in making arrangements for the meeting at Charlottetown, and everything points to an interesting, instructive and enjoyable conference. There will, of course, be a large representation of Prince Ed-

ward Island physicians at the meeting, and we would urge a full attendance from the other Maritime Provinces as well. The island is very beautiful in July, the short sea-trip which forms part of the journey for those who live on the mainland is most pleasant, and the Island profession is noted for hospitality, so that those who attend will be assured an extremely enjoyable as well as a profitable excursion.

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CANCER OF THE BREAST.

AT the meeting of the British Medical Association held at Sheffield last year, an interesting discussion on Cancer of the Breast took place, led by Sir Watson Cheyne and Mr. Harold J. Stiles. The first point insisted upon by all speakers was the great importance of early diagnosis. The following were some of the points named to assist an early diagnosis:

1. Inspection may show a difference of level in the nipples, the nipple on the diseased side being at a higher level than on the healthy side. This sign Sir Watson Cheyne considers almost pathognomonic.

2. The presence of puckers and dimples in the skin.

3. The extent of the mobility of the skin over the tumour, and in examining for this only the most gentle manipulation is allowable; by pushing the breast gently in various directions with the finger, one can see whether the skin tends to be drawn in as the tumour moves, or whether the latter moves freely under the skin.

4. Adhesion of the tumour to the pectoral fascia is a matter of great importance and can be ascertained by putting the muscle on the stretch and seeing whether the tumour moves as freely as the corresponding part of the other breast in the direction of the muscular fibres.

5. The character of the lump itself. The important point in many cases is the indefinite character of the swelling; where the cancer is quite small, one may simply feel what appears to be a bunched-up piece of fairly normal breast, and it may not be easy to detect a tumour at all. Even where a distinct lump is to be felt, the margin of the lump is usually ill-defined; in such a case, also, the hard and knobby character of the mass, especially when pressed against the chest wall, is very characteristic.

6. One should always be suspicious of a lump in the breast which appears in a patient over forty.

7. Diagnosis by operation. In any exploratory operation it is extremely important not to cut into the tumour *in situ*. Wide excision of the suspicious mass, and the examination of this mass after its removal from the body is to be recommended in these cases.

In these doubtful cases it was further insisted upon, that if the medical attendant is in doubt as to whether a given lump in the breast is benign or malignant, the worst treatment of all is to temporize and advise the patient to apply some local remedy. "Belladonna plasters and iodine on mercury ointments have been responsible for assisting many a poor woman into her grave."

In the discussion on treatment of Cancer of the breast there was a great unanimity of opinion that the only course was early operation and complete removal of skin, mammary gland with contained tumour, fascia, both pectoral muscles excepting the clavicular fibres of the great pectoral, and the whole contents of the axilla dissecting from the apex downwards. Mr. Stiles, in addition to this, continues his incision downwards to the epigastrium and dissects off the fat and deep fascia from the epigastric triangle and the upper part of the corresponding rectus, while Dr. Handley

(London) goes even further and takes away some of the fibres of the serratus magnus. It will thus be seen, without going into the details of the operation, that to give a patient the benefit of up-to-date surgery in a case of cancer of the breast means a very extensive operation, which should only be undertaken by a surgeon of experience. The day when every general practitioner can operate on a case of cancer of the breast, taking away merely the mamma itself, or perhaps one or two enlarged glands, is now past; and one result of such a discussion will be to impress upon the minds of the profession the need for thoroughness and skill in such operations. At the same time, a note of hopefulness was struck, when we learn that in hospital cases 40 per cent. have been cured, and, of private cases, Dr. Renton (Glasgow) reported that from 1900 to 1905, 80 per cent. operated on are still alive.

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Anti-Tuberculosis Campaign.

THOSE who occupied seats on the platform at the meeting held in the Academy of Music on the 24th of March, will not soon forget the sea of earnest faces turned toward the speaker of the evening, Dr. John McCrae of Montreal, as he described the plan of campaign against tuberculosis.

meeting could not have secured a better man for the work. Dr. McCrae is known to us all as a talented investigator and his special study of tuberculosis entitles him to speak with authority. His carefully measured language, terse, clear, vivid, went straight to the point. It was a perfect example of the art of conveying scientific truth to a popular audience and we cannot imagine any one coming away from hearing this lecture without clear views as to the combat with tuberculosis, a knowledge of what we have to do, why we do it, and how to do it.

We may say that the present anti-tuberculosis campaign in Halifax had its origin in the Canadian Club, which took action some months ago. Ultimately a joint committee was formed from the Board of Trade and the Halifax Branch of the British Medical Association, and arrangements were made for a mass meeting and a public lecture. The matter was taken up with enthusiasm by the medical men of the city and by several leading citizens ,and interest has been unflagging. It was the original intention to have the lecturer appear under the auspices of the Canadian Club in St. John, N. B., and Charlottetown as well as in Halifax, but this could not be arranged.

We would suggest to our friends in Prince Edward Island that it would be a good plan to have public interest stirred in their Province, and that next July, when the Maritime Medical Association meets in Charlottetown, we should have Dr. McCrae again with us to deliver an address to a popular audience. It is an excellent feature of many medical meetings now-a-days to have one evening devoted to a popular lecture or discussion of some question of Public Health. It is one of the best ways of educating the public in those truths which lie at the foundation of national prosperity and domestic happiness.

Salus populi suprema lex is a doctrine which appeals to every man who loves his country whatever his views may be on politics, finance, or the social system. It was never more strongly put than by that great Imperialist, the marvellous Jew, Disraeli, when he said, "The public health is the first duty of the statesman."

RETROSPECT OF SURGERY.

Pelvic Abscess With Special Reference to Rectal Drainage.

IN the *Journal of Surgery, Gynecology and Obstetrics, June*, 1908, is an article on this subject by Dr. Archibald MacLaren, of St. Paul, Minnesota.

He considers that the problem of how to deal with pus in the pelvis has been practically solved, in so far as woman is concerned, that all intraperitoneal pelvic collections of pus, with the exception of tubercular cases, whether from cellular tissue, appendages, uterus, or appendix, can be cured in the vast majority of cases by Vaginal Section.

He bases this view upon an experience of 210 pelvic cases treated by Vaginal Section. In his pus tube cases comparatively very few required a later laparotomy and removal of appendages.

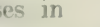
This procedure has been followed by many Surgeons with excellent results in suitable cases. There can be no doubt that Vaginal Section and drainage provides a short, safe operation in many cases taxing but slightly the strength of the patient and avoiding a painful prolonged convalescence.

Dr. Archibald MacLaren then takes up the object of pelvic abscesses in the male, here, to reach the pouch of Douglas, the opening must be made through the anterior rectal wall.

He says the fear of increasing the infection or of further contaminating the abscess cavity has held the Surgeon back and prevented the male being offered the same chance of relief as the female. The great majority of pelvic abscesses in man are due to perforative appendicitis. He considers it important to examine every case of acute appendicitis through the rectum before operation, and the pelvic accumulation is drained at the first operation with a supra-pubic drain, rectal drainage is reserved for cases which develop pelvic accumulations or convalesce badly.

He advises rectal puncture and drainage in another class of cases, in diffuse septic peritonitis of some days standing where any operative procedure from above would take away the only chance of recovery that the patient had.

The author does not consider there is danger from rectal drainage. His procedure is to place the patient in the exaggerated lithotomy position (Pryor's position), after dilating the sphincter ani, the anterior wall of the rectum is exposed by the use of a weighted vaginal speculum—a long bladed retractor is used for the anterior wall to hold the bladder, previously catheterized,, out of the way. The rectum is then cleansed, the bulging anterior wall is located and the abscess is opened with long dissecting forceps or pointed scissors, a dilator is passed along the scissors as a guide and then a 1-4 inch rubber winged tube is passed well up into the cavity.



Restoration of the Perineal Portion of the Urethra After Destruction by Fracture of the Pelvis.

The *Annals of Surgery*, January, 1909, contains a paper on this subject by Dr. Hugh Cabot, of Boston, Mass.

The restoration of considerable gaps in the urethra, he states, resulting from stricture has long been a difficult problem. Grafting by the Thiersch method, interposition of portions of

the urethra taken from animals, plastic operations, have all been attempted, as well as approximation of the remaining portions of the urethra by mobilization which is here specially dealt with.

He relates the case of a young man injured in a railway accident. There was found to be fracture of the pelvis and rupture of the urethra. After various operative procedures and temporary relief the man later appeared with acute retention of urine which was relieved by suprapubic drainage—later the urethra was explored and it was found that the fractured pubic arch lay between the severed ends of the urethra which had retracted upwards.

The following operation was carried out successfully:—

A curved incision was made in the perineum from one tuberosity to the other, passing about one and a half inches in front of the anus. The rectum was freed from the scar tissue and pushed back and the prostate was mobilized by blunt dissection. A vertical incision was then made over the bulbar portion of the urethra and the anterior urethra freed from scar tissue and exposed to a distance of two and a half inches.

The urethra was entirely freed from the surrounding tissues to the penoscrotal angle. The mobilized portion was two inches in length. The divided ends were then approximated without tension and united with catgut sutures over a soft rubber catheter. There was satisfactory union and later a No. 20 F bougie could be passed without difficulty.

Dr. Cabot points out that this case shows the extent to which the perineal and scrotal portions of the urethra can be mobilized without danger to their blood supply and the size of defects which may be thus bridged. At the time of operation the distance between the ends of the urethra was two inches, the mobilization of the prostate diminished the space one-half inch, the gap ultimately filled was one and a half inches. The separation of the urethra from behind forwards did not cause the damage from interference with blood supply which might be theoretically expected. Success depends on approximation without tension; if this cannot be done, retraction will follow, resulting in a long fibrous stricture. Union without stretching of the scar results in an annular stricture which can be treated by dilatation.

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Peritonitis in Children from Unknown Sites of Infection.

The Annals of Surgery of December 1908, contains an article on this subject, by Dr. Charles N. Dowd, of New York.

He says there are certain phases of peritoneal inflammation in children which differ enough from those ordinarily found in adults to justify their special consideration.

Children are more likely to have rapidly spreading insidious forms of peritonitis than are adults, since they are less likely to encapsulate the inflammation. They are less likely to be constipated during its course and hence have less of tympanites. They are much more likely to have associated cerebral symptoms, so that there may be difficulty in determining whether the condition is primarily cerebral or abdominal.

Pulmonary inflammation is often accompanied by abdominal pain and rigidity—beginning pneumonia may be mistaken for appendicitis. Pneumococcus peritonitis is much more common in children than in adults. General gonococcus peritonitis occasionally occurs and tubercular peritonitis is common.

Streptococcus infection spreads through the abdomen with great virulence, it is not easy of diagnosis and is not associated with any discoverable site of infection.

Dr. Dowd gives notes of several cases of this form of infection, all of which were fatal. Kerley in his "Treatment of Diseases of Children," states that he has seen four cases within a year all fatal. Early operation may be of service in some cases, but it is more favorable in coli communis infection.

Early diagnosis in the class of cases specially referred to in this paper is difficult because abdominal rigidity is wanting or moderate in degree. The symptoms are usually indefinite; there is extensive vomiting and prostration without tympanites or marked rigidity or constipation, diarrhœa is often present, the streptococcus being more virulent than the coli communis cases.

These infections occur much more frequently in children. In adults the site of infection may nearly always be assigned.

It is believed that the infection in the cases referred to takes place by the passage of the germs through the intestinal wall.

The paper draws attention to several very important conditions and most clinicians will recall cases which fall into the group now referred to.

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Douglas Argyll Robertson.

The British Medical Journal of January 16th, 1909, contains an obituary of this great oculist and charming gentleman.

He died at Gondal, India, on the 3rd of January, at the age of seventy-two, during a visit to his friend the Thakur of Gondal.

The Profession are familiar with his name on account of his work in connection with the Calabar bean, with eye symptoms in spinal disease and other noteworthy investigations.

Those who met him in Edinburgh were invariably impressed with his personality and attractiveness. He was fond of the social side of life and sports such as archery, golf, curling, shooting and fishing.

Sir Anderson Critchett writes of his handsome intellectual head and splendid frame which once seen could never be forgotten, for he was the ideal representative of well-balanced mental and physical vigour. The watchwords of his life were Courage. Duty and Honour, and he possessed in a marked degree that old world courtesy of manner.

He was an exceptionally brilliant and successful operator, fertile in initiative and resource.

With his great intellectual powers and deep scientific knowledge he combined a love of manly sport.

Critchett on one occasion suggested to him that it was better to be an Argyll Robertson pupil than to have one.

The last occasion on which the reviewer had the privilege of meeting him was eighteen months ago, one evening enjoying a game of Bridge near Edinburgh with his old friend the Professor of Surgery, and again on the following day, and this is the impression which will remain perhaps most vivid, walking on the St. Andrews Links, when he kindly introduced him to the Royal and Ancient Club.

M. MacL.

A FEW REMARKS ON APPENDICITIS WITH CASE REPORTS.

DR. G. H. MURPHY,
Glace Bay, N. S.

(Read before the Halifax and N.S. Branch British Medical Association, January 6, 1909.)

I WOULD like to record my appreciation of the honour I feel in being here to-night, and having this opportunity of meeting and speaking to the members of this Branch of the British Medical Association. I had looked upon this occasion as a part programme of a few days vacation planned for myself a short time ago. As a member of the Association, I feel like applauding the masterly perseverance of the Branch's Secretary, Dr. Watson, in arousing to some sense of their duty, members, who like myself, live outside Halifax. It is hard to refuse Dr. Watson, when he makes a request. I soon found myself promising that, if I went to Halifax as I intended doing some time in January, I would make an effort to furnish some quota to the work of the Branch, which, if it had no better value, would at least show that I wish to be known as a living unit of this grand old Association. After much worry and perturbation of spirit, I decided to comment briefly on a disease which, more than any other surgical ailment, has been thrown in my way during my six years of practice. I refer to appendicitis. I do not presume to think that in discussing this somewhat well-worn theme I shall tell you anything new, but the great importance of the subject, the oft-times insidious character of the disease with its direful results if we fail to do the proper thing at the proper time, should always stamp it as a subject for our best thought, and should invite contributions from all sources that have given it even a moderate degree of consideration, or brought to it from actual observations in practice even a comparatively limited experience.

Pathological and Anatomical Considerations:—Everyone is now agreed that appendicitis is due to the action of septic organisms from the inside, acting first upon the mucous coat and setting up inflammatory changes that, even in a short time, may extend through the appendiceal wall to the peritoneum, causing a local or general peritonitis. The elements essential to an attack of appendicitis are septic organisms and a lowered vital resistance of the appendix. The former is ever present in the appendix and intestine; the latter may be induced by anatomical irregularities of the organ or its mesentery, old adhesions, foreign bodies, fæcal concretions, strictures, exposure to cold or even direct injury,—any of these may readily be supposed to lower the vital resistance of an organ such as the appendix which is a vestigial structure and therefore subject to the all anatomical and physiological imperfections not found in other organs or in other parts of the intestinal tract.

Besides the conditions referred to that tend to produce a locus minoris resistentiae and thus predispose to inflammation of the appendix, we have other causes operating in the intestine that may produce the same result by increasing the virulence of the septic organisms. The mucous membrane of the appendix being continuous with that of the cæcum and thus with the intestine in general, it may well be

supposed that it shares in the disturbances set up in the intestinal tract by such conditions as constipation, diarrhœa, gastric and intestinal dyspepsias from whatever source,—anything, in fact, producing pathological changes in the intestinal mucosa. The intestinal disturbance being so common, one might be inclined to wonder why appendicitis does not occur with even greater frequency than it does. But the reason is that, ordinarily, the intestinal mucosa is able to overcome the attacking agents and their toxins and the appendix may, perhaps, share in the victory. But if it is hampered by abnormal conditions such as strictures, concretions in the lumen, adhesions etc., the vital resisting power is lowered, it is unable to overcome the septic horde that infest its lumen and appendicitis is the result. Even the anatomical and physiological defects may by themselves be enough to lower the resisting power of the appendix sufficiently to keep it from throwing off the septic organisms and toxines that irritate it.

The cæcum and appendix comprise that portion of the colon that lies below the level of the ileo-cæcal valve. It is a blind pouch two and one half inches in length. Developed in the region of the umbilicus, about the middle of fœtal life it descends to the right iliac fossa where it becomes attached by the posterior layer of peritoneum or by meso-cæcum when such exists. Irregularities in its mode of receding from the region of the umbilicus will account for abnormal positions of cæcum. Normally lying on the psoas magnus muscle in the right iliac fossa, it may be found lying as high as the kidney or liver; low, dipping into the true pelvis; near the region of the umbilicus where non descent has occurred, and in some very rare cases reported, near the spleen and in left iliac fossa. In the case of a twelve year old girl operated on during last summer, the cæcum was found considerably higher than its normal position, and the appendix lying behind it extended upwards and backwards, its distal end, gangrenous, was lying in an abscess cavity near the lower pole of kidney. In this case the pain and tenderness corresponded exactly to the position of the appendix. It was felt in the loin and well above the superior iliac spine. Drainage was made from behind. There was no pain and tenderness at McBurney's point. The appendix itself is a musculo-fibrous prolongation of the cæcum. It has a lumen about the size of a goose quill, varies in length from 2 to 6 inches and is more or less completely invested with peritoneum. It is lined with a mucous coat which lies on a relatively thick sub-mucosa composed of connective tissue, arterial openings and lymphatic spaces. The appendix is especially rich in a lymphoid tissue, the mucous lining itself being largely made up of lymphoid cells. The arrangement of the muscular fibres is mostly longitudinal, the circular fibres when they exist at all, are not well developed. This, of course, accounts for the feeble expulsive power of the appendix and its consequent inability to dislodge bodies that may work themselves into its lumen from the cæcum. The valve of Gerlach which was supposed to guard the lumen at the appendiculo-cæcal orifice can only occasionally be demonstrated, and when it does seem to be present, fæcal matter has sometimes been found in the appendicular cavity, which seems to discredit somewhat the alleged function of this rather inconstant entity. The blood supply of the appendix in the male lies in the small appendicular artery which lies alor the free border of the mesentery and

gives off twigs that pass into the substance of the organ. When no mesentery exists the artery lies beneath the peritoneal coat. An additional blood supply in the female is found in the small vessels that run in the so-called appendiculo-ovarian ligament. Nerves of sensation are absent in the wall of the appendix. They are only found in its peritoneal coat, and consequently no severe pain is experienced until the inflammation has extended through to the peritoneal coat, or until this coat is dragged upon by distension of the tube from blocking by foreign matter, or retention of its normal secretions by kinks, strictures or the like. The uncomfortable sensation sometimes felt by the patient in his right iliac fossa may be of this character. There may not be much or any inflammatory disturbance in the appendix, but there is a large fæcal concretion that it is trying to dislodge; or perhaps the appendix is kinked or constricted, making the same condition. Sooner or later the irritation will lower the vital power of the appendix so that a virulent inflammation is set up. A young man ,aged twenty years, consulted me some time ago for a slight pain he had been feeling from time to time in the right iliac region. It was more of an uncomfortable sensation than a severe pain. It would disappear for a month and reappear again. He complained of indigestion as well. I never could find any temperature or disturbance of the pulse. I treated him for a time with purgatives, intestinal antiseptics and stomachics, without any good results, and although he was still able to work daily, I advised operation, and he entered the hospital next day. I found a long appendix with a mesentery extending to the tip. The mesentery was shortened near the middle which produced a kink in the appendix of almost a right angle. Distal to the kink was a fairly large fecal concretion. Apart from this and a slight congestion of the organ the appendix looked innocent enough. The pain and discomfort disappeared with the operation. His indigestion also got well, being due, I suppose, to reflex disturbances from the appendix. Foreign bodies in the appendix are not found so often as was formerly supposed. But we sometimes see them. In four cases I saw at St. Joseph's Hospital a year ago a grain of duck shot was found in the tip of the appendix of one. It had ulcerated nearly through before setting up enough trouble to bring the patient under surgical care. In three others the lumen simply swarmed with thread worms. A catarrhal inflammation was present, due very likely to irritation produced by these parasites.

With regard to the position the appendix may assume, it is clear that an abnormally placed cæcum will have an abnormally placed appendix. When the cæcum is low, dipping into the pelvis, the appendix may lie in contact with such pelvic organs as the bladder or ovaries, and when inflamed, give rise to symptoms simulating disease of these organs. Even when the appendix is not in exact connection with the viscus it may be close enough to enable the inflammation of the peritoneal coat extending to it by direct continuity of tissue. In the case of an Italian coal miner who consulted me last summer, frequency of micturition with accompanying pain was what he complained of. On palpating the abdomen, I detected some tenderness and hardness of the muscle in right iliac fossa, I diagnosed appendicitis, and on operating next day, found a long inflamed appendix hanging into pelvis with its tip bound to fundus of bladder by newly formed inflammatory adhesions. He ran the

ordinary convalescence the symptoms disappearing with the operation. In another case which I operated on last winter, an exceptionally long appendix was found lying upwards by the outside of cæcum and colon. It was bound down by all kinds of adhesions, evidencing former attacks. The patient gave a history of several attacks of pain extending over a period of three years. The pain was often felt in region of right costal cartilage, and on one or two occasions jaundice was present. An examination of the gall bladder during operation showed no evidence of any gall bladder trouble: and since the patient has had no pain or jaundice since, I think it a fair conclusion that the trouble was due to extension of inflammation from appendix to gall bladder.

The Mesentery:—Referring to conditions which tend to lower the vital resisting power of the appendix and thus predispose to appendicitis, I would like to refer briefly to the somewhat mooted part played by the messentery. Granted that the rather poor blood supply is an element in producing vulnerability of the appendix, it would follow that any condition tending to further limit the blood supply would be a factor in the etiology of the disease. I have no data from observations made on any of my cases that would seem to have any bearing upon this phase of the matter, but I saw three cases two years ago at St. Joseph's Hospital, Glace Bay, that seemed to support the view that the absence of a meso appendix may have something to do with inducing an attack of the disease. I am indebted to Dr. McDonald for the following case reports:—

Case 1.—Female aged ten years. Became ill with vomiting and diarrhœa at a time when three of family were ill with gastro-intestinal disease. As recovery did not follow she was examined when an appendiceal abscess was diagnosed. This was opened and drained, the appendix being also removed. Appendix had no mesentery.

Case 2.—Brother of above. Developed symptoms of appendicitis and was operated on immediately. A large swollen appendix was found in a nest of adhesions between coils of intestine. No mesentery was present.

Case 3.—Sister of above. Became ill about a month later with vomiting and intense pain and tenderness in right iliac fossa. Operation same day. Catarrhal inflammation of appendix found. No mesentery present.

Diagnosis and Treatment:—In September last a young man, aged 21 years, was attacked with severe pain in abdomen. Woke out of his sleep at three in the morning with this pain, which was soon followed by vomiting. He had worked in the mine the preceding day and, apart from some constipation and impairment of appetite, felt well going to bed. The physician who saw him in the morning found a temperature of 103°, pulse 120, pain and tenderness all over abdomen, greater in right iliac fossa. He was vomiting. A history of previous attacks of abdominal pain which had been variously diagnosed as acute indigestion, cramps, etc., was obtained. The patient was thought to be suffering from appendicitis and was sent to the hospital a distance of eight miles. I saw him in the evening fifteen hours from the beginning of attack. Temperature 104, very rapid pulse and abdomen distended, and tender all over. He was vomiting and had severe pain. I thought his condition alarming enough to render delay inadvisable, and contrary to my intention of waiting until next day, I had him prepared at once for operation. On opening the abdomen I found pus free

in the peritoneal cavity, every loop of intestine moved brought a gush of pus. The odor of the pus was not very offensive. But there was an abundance of it. The intestines were everywhere bathed with it. The appendix, perforated, gangrenous and stinking was tied off and removed. Openings were made in the middle line and loin and large rubber drainage tubes carrying iodoform wicks were put in. The patient was put to bed in the Fowler position. Next morning temperature was normal, and it continued so practically throughout an uneventful convalescence. Discharge was copious first 24 hours, but gradually lessened afterwards.

The next case I wish to refer to for the sake of contrast and comparison, and to indicate some points in diagnosis and treatment, occurred a few days after the above. It was not my case but I had opportunity for following it.

Man aged 25, had cramps and diarrhœa on September 20th and 21st. Was well enough to go to his work on 22nd and 23rd. On night of 24th had severe pain in abdomen, but felt all right next day. Severe abdominal pain again on night of 25th. When first seen by a physician, temperature 98.5, pulse 96, tongue a little dry, abdomen hard and slightly tender all over. No special point of tenderness. He was removed to the hospital next day. He had then hardly any pain and declared he was much better. But his eyes were sunken, tongue dry and countenance apathetic looking. Still no temperature and very slight disturbance of pulse. Operation showed stinking, gangrenous appendix and belly full of pus. Appendix was removed and treatment carried out about the same as above. Did fairly well for a few days. Then obstruction of bowels developed. Was opened in middle line and intestines were found matted together in every conceivable shape. Every adhesion broken disclosed a pocket of foul smelling pus. More drainage was inserted. But the patient was profoundly toxæmic and never rallied.

Taking everything into account the diagnosis of appendicitis was easy enough in both these cases. Nor have I yet seen any cases where the diagnosis seemed to offer any great difficulties. The history of the patient with regard to previous abdominal ailment and the history of the present attack are most important aids in the diagnosis. Sooner or later there is likely to be some degree of localization of pain and tenderness in right iliac fossa. The temperature and pulse are notoriously uncertain and furnish no criterion upon which to base a diagnosis; nor do they necessarily indicate the extent to which disease has gone. In the two cases quoted the temperature and pulse in one was the contrast of the other, and yet the pathological condition shown at the operation was the same in both. I think these two cases show fairly well how deceptive temperature and pulse may be in this disease. A more important indication of the seriousness of the condition present is found in the face and tongue. A dry tongue and drawn facies are decidedly ominous, and indicate a blunting of the vital centres from toxic absorption. When the abscess is walled off from the general peritoneal cavity, nature sets up such barriers as limit the amount of absorption from the toxic area and hence these symptoms may not be so well marked. In the second case the condition of temperature and pulse showed the weak reactionary power of the patient, a low opsonic index. In the first case the reacting power of the patient was better, and he was able to

furnish enough opsonins to save the vital centres until the operation and removal of the septic focus gave the odds in favour of the patient. How long the unequal struggle could last is hard to guess, but it seems to me that the matter of a few more hours delay would greatly lessen his chances of recovery. Therefore, it seems to me, in making a diagnosis and deciding on treatment, one should try to picture to himself the pathological processes which are going on in and about the appendix. Measure their degree by considering minutely the history, symptoms and physical signs; and if it be felt that the appendix is not yet seriously damaged and that, therefore, resolution may take place it may be justifiable to wait and watch. If there is doubt, and I believe there is likely to be in the great majority of cases, I don't think we do justice to our patient if we delay the operation longer than it takes to have him removed to the nearest hospital, or where this is available, to improvise in the patient's home such equipments as will render it possible to perform the operation then. The patient may get well without the operation. But he may not; and he will find the death sentence no less hard because you are able to tell him that you cured your last ten cases without operation. He wants to get well and is not concerned with theories and statistics. C. Mansell Moullin, of the London Hospital, Eng., says: "While medical treatment may prevent an attack it can never cure it." If it is true that an unhealthy condition of the intestinal tract precedes an attack of appendicitis and predisposes to it by increasing the virulence of the septic organisms and their toxines, it seems reasonable that a large dose of calomel or castor oil may ward off the attack by ridding the intestine and appendix of the "perilous stuff" that is making them a suitable culture ground for septic bacteria. The disease once fully developed is by all right a surgical affection, and while resolution may take place as in inflammations elsewhere, it does so independent of any medical treatment. Nowadays when so many doctors are found in "cutting humour," the patient need not be deprived of the advantages of surgical treatment no matter how remote he may be from the modern halls of surgical science. There is very little surgical skill required to make an incision into the peritoneal cavity in the region of the appendix, and even this may be quite enough to save the patient from peritonitis by promoting drainage along the line of least resistance. If this were done early and oftener by the country physician we would almost cease to hear, as we still do on occasions from remote places, of death from "inflammation of the bowels."

WHAT MODERN SURGERY CAN ACCOMPLISH IN DISEASES OF THE STOMACH.

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AS we look back over the last twenty years in which gastric surgery has been active, we find that as is usually the case, our present position has been one of gradual development. Then the stomach and upper bowel were a terra incognita to the surgeons, and nothing but a vital indication would justify him in attempting operation upon it. Cases of perforation of the stomach came to autopsy and we knew that a perforation of the stomach wall, with its contents leaking into the general cavity, was fatal; the symptoms were easily recognized, and knowing that we could do no harm, we ventured upon the radical measure of suture of the opening, and in a few cases—mirabile dictu—were successful. The early literature of gastric surgery concerned itself almost exclusively with gastric and duodenal perforations. I well remember the pride with which I myself in 1894 presented a successful case. In this connection we must not forget that this society has the proud distinction of having among its members, the man who in '84 performed the first successful operation for perforating gastric ulcer done on this continent. I need not tell you that his name is Dr. Alfred B. Atherton of Fredericton, New Brunswick, who is here present at the meeting. The question early arose whether it was wiser to excise the ulcer and suture the healthy stomach or to infold the ulcer and suture it without excision. The latter method as being the more simple and bloodless has stood the test of time, and to-day the best practice is to infold the ulcer, deeply, so that one's sutures may take in healthy stomach wall outside the base of the ulcer and hold it by two or three superimposed rows of linen sutures. The infolding should always where possible be done in a direction transverse to the long axis of the stomach, especially near the pylorus, so as not to narrow the lumen. Naturally the septic fluid and escaped stomach contents should be washed out of the abdomen, and I like to drain the pelvis with a glass tube for two or three days, and employ the Fowler position. Later, when the operation of gastro-enterostomy came into vogue, certain authors advocated the performance of a gastro-enterostomy at the same time as the suture of the stomach, in order to place the stomach at rest and facilitate the healing of the ulcer, thus preventing future perforation. This adds to the operation of suture of the ulcer, a complicated procedure which must be performed in the presence of much abdominal sepsis, increasing the danger of infection. The operative exhaustion or shock, which must in any event be added to the exhaustion already present, of the perforation itself, is also increased. It is not to be recommended except in the rare cases, where the ulcer, situated at the pylorus, is so deep that infolding it trenches on the lumen so as to cause obstruction, in which event it may be performed. I have performed it twice in perforation at the pylorus with one fatality. Into the symptoms of gastric perforation, the sudden pain, vomiting, prostration, collapse, and board-like hardness of the upper abdomen

with which you are all familiar, it is not necessary for me to go, suffice it is to say that they indicate immediate operation, and that the mortality is in direct proportion to the promptness of interference, something like eighty per cent. of the cases operated upon within twelve hours recovering, while after twenty-four to thirty-six hours the mortality rapidly increases. I may mention briefly in passing the subacute perforations of the stomach. In these cases the ulcer grows deeper and deeper until a pin-point perforation occurs, which does not pour out the gastric contents into the peritoneal cavity, but becomes immediately walled off by adhesions, usually to the under surface of the liver, to the abdominal wall or to the omentum. Here the initial symptoms, while severe, tend to quiet down, and perhaps by the time the surgeon sees the case it may be evident that the symptoms are subsiding. If operation, as it frequently does, discloses adhesion to the under surface of the liver, the best practice is not to pull the stomach away and suture the opening, a procedure sure to be attended with momentary leakage, but to leave it as it is, let nature close the perforation in her own way, and simply perform posterior gastro-enterostomy in order to drain the stomach and facilitate the healing of the ulcer. This procedure in my hands has been followed by the happiest results in these cases. Nature has kindly provided that most acute and subacute perforations take place on the anterior surface of the stomach which makes them easier and safer to deal with. Chronic perforations, resulting in localized abscesses come without the scope of this paper, they are treated by evacuation and drainage, and allowing the perforation, which cannot be surgically closed, to take care of itself.

Haemorrhage

When the occasional fatality of gastric haemorrhage was considered, and the surgical triumphs which had been attained in intra-abdominal haemorrhage, usually extra-uterine pregnancy, surgeons were emboldened in certain cases to attack haemorrhage from the stomach. These attacks were made in patients exhausted by acute anaemia and starvation, and it was soon found that to find and stop the haemorrhage by surgical means was not so easy as to tie off and remove the ruptured tube in ectopic gestation. In acute ulcers in young women, often after opening the stomach, no bleeding point could be found, or the bleeding was found to take place as a rapid oozing from a broad surface, usually impossible to find and tie. Excision of the bleeding area was often impossible; infolding with purse-string suture was practised, but on account of the extent of the area, was often unsuccessful. All these procedures involved extensive and often unsuccessful search, and the operation often failed to accomplish its object in patients weakened by acute anaemia and starvation. The mortality was high and but little good was accomplished. After the operation of gastro-enterostomy became popular, it was advocated in haemorrhage from acute ulcer, as tending to place the stomach at rest, thus favorably affecting the haemorrhage. It is better than the often futile search for the bleeding point and also than infolding or excision, because it is a quicker, simpler and more aseptic procedure, but for all that it has been found to be followed as well as preceded by gastric haemorrhage, even in the cases in my hands which ultimately recovered. Haemorrhage from acute medical ulcer in young women, then, is best not treated by surgical means. Ninety-five per cent. of them recover under medical treatment, and surgery adds

the burden of shock to that of a haemorrhage which it is often unable to stop.

In another class of haemorrhage, however, the situation is quite different. I refer to haemorrhage from chronic ulcers in middle aged patients, usually men. Here the patient may be exhausted and anaemic from slow, continuous or oft-repeated slight haemorrhages, or may have suffered from one or two copious haemorrhages. In these cases the opened arteries lie in the base of a large ulcer, and are held open by the stiffness of inflammatory infiltration. Normal conditions can only be restored by the excision or healing of the ulcer, and death ocurs if the case is let alone, from acute or chronic anaemia with starvation. Here haemorrhage is best treated by operation and in the majority of cases the best operation is gastro-enterostomy, which begins by putting the stomach at rest, stilling the pull of the irritated muscles upon the bleeding ulcer, and ends by allowing healing to take place. The impracticability of attempting to tie a bleeding vessel in the base of an indurated, infiltrated ulcer is obvious, and excision is usually too severe a measure in patients debilitated by haemorrhage.

Stricture of The Pylorus and Chronic Ulcer.

In the early days of gastric surgery we used to hear of Loreta's operation, dilatation of a strictured pylorus by means of the forefinger introduced through an opening in the stomach; and the Heineke-Mickulicz operation, which consisted in making a longitudinal cut over the pylorus, spreading it apart, and sewing it together in a transverse direction, thus widening the lumen. These procedures were unsatisfactory and frequent relapses took place. Wolfler's operation of gastro-enterostomy, which consisted of making a new and independent opening between the stomach and intestine, practically put an end to these procedures, and has made possible the development of modern surgery of the stomach. The anterior operation as was natural because it was the simplest and most easily performed, was first tried, but it had the disadvantage of bringing a long loop of small intestine across and in front of the colon, with possibilities of intestinal obstruction, and was soon superseded by the posterior operation of Von Hacker. This was also performed with a loop from six to eighteen inches long. It was soon found, however, that in a certain percentage of the cases, bilious vomiting or decided vicious circle developed, and a number of patients died as a result. This was due often to faulty technique, resulting in kinking of the bowel at the site of anastomosis and the formation of a valve in such a manner as to obstruct the descending loop and prevent the passage of stomach contents down into it. The bile from the duodenum passed into the stomach through the gastro-enterostomy opening, could not get down into the distal loop, went out through the partially open pylorus and back into the stomach again, filling and dilating that organ. Persistent bilious vomiting, followed by speedy exhaustion and death took place. Some of us can remember only too well the sad end of a few of these patients. This was corrected, (1) by making the opening in the most dependent position of the stomach close to the greater curvature, (2) by establishing an entero-enterostomy, to short-circuit the bile, (3) when this proved ineffectual by division of the ascending loop with infolding of the ends, and even in some cases, (4) by division of the pylorus, so that all the stomach contents would have to pass

out by the new opening. Complicated and time-consuming were these procedures and yet a few years ago many of us were carrying them out with good results, on the whole. It seemed as if surgical endeavor was engaged in trying to devise more complicated short-circuiting methods and each author were suggesting a new kind of knot in which to tie the upper intestine. Vicious circle was done away with, and also the not uncommon chronic regurgitation of bile, by division of the ascending loop, but the operations were so complicated and prolonged as to be dangerous in any but the most skilled hands. Then came the demonstration of Von Mickulicz, that the suture of the very beginning of the jejunum at the ligament of Treitz, the short loop or no loop operation, prevented kinking and therefore regurgitation, and finally the added refinement worked out by Mayo and Munro, of turning the efferent loop to the left in its physiological direction, and the operation of posterior gastro-enterostomy became established in its present safe and simple basis.

At the time when the long loop mentioned was in vogue and regurgitant vomiting was frequent, Finney of Baltimore, introduced his modified pyloroplasty, or gastro-enterostomy in inverted U, a very ingenious and beautiful procedure. It was more difficult to perform than gastro-enterostomy, did not deflect the food current from the inflamed and usually ulcerated pylorus, and could not be done in the presence of great inflammatory thickening in that region. Cases of simple cicatricial stricture of the pylorus, to which it was specially adapted, were rare. For these reasons as time has gone on, it has given place to the simple safe posterior no loop gastro enterostomy.

Now, as these procedures have been applied to strictures of the pylorus, either from scar contraction or inflammatory thickening, it has been found that when a definite demonstrable stricture or inflammatory obstruction existed, the patients have recovered, and ulcers, either in the gastric or duodenal side of the pyloric ring, have healed. On the other hand, success in the treatment of these conditions has led to the practice of the operation in acute medical ulcers, in ptosis of the stomach accompanying a general enteroptosis, in neurasthenic conditions, accompanied by persistent vomiting, etc. It has been thought that the vomiting in these conditions was due to pyloric spasm, which would be relieved by gastro-enterostomy. Many operations have been performed for the relief of uncontrollable vomiting from various causes. These operations upon starved and exhausted patients have often been fatal and have almost always failed to relieve the symptoms. Sometimes the patients have been worse. In fact, some surgeons have been busy of late years in disconnecting the loop of intestine attached to the stomach at former gastro-enterostomies with marked benefit to their patients. In general it may be said that gastro-enterostomy is a drainage operation, pure and simple, and that it relieves and cures with certainty only the cases in which there is a demonstrable obstructive lesion at the pylorus. There is no doubt also that the simple procedure of gastro-enterostomy will cure certain cases of chronic ulcer not directly at the pylorus, but situated on the lesser curvature and posterior surface. There are certain extensive indurated ulcers of the lesser curvature, however, which, in my hands, have not been cured by gastro-enterostomy. These are the so-called saddle ulcers, thick, indurated, with elevated

edges, the kind of ulcer which often becomes cancerous and which ,at operation, may be and is indistinguishable from cancer, to the unaided eye. Even after excision the pathologist may be unable to decide without a painstaking section and examination of every part of the growth. These ulcers, if not attached to other organs by previous perforation are, to my mind, better treated by excision, excision with a wide margin of stomach, just as we would treat cancer. By doing this we will successfully remove a certain number of early cancers, and by the excision of ulcers prevent their cancerous degeneration. The mortality in competent hands ought not to be over five to ten per cent. If these chronic ulcers are so adherent to liver or pancreas as to make excision unduly difficult or dangerous, gastro-enterostomy is our only resource and will cure a large proportion of cases. Only the other day a patient upon whom I had operated four years ago for all the clinical symptoms and laboratory findings of ulcer of the stomach with perforation and adhesion to the under surface of the liver, died, and the autopsy showed that the large saddle ulcer had never healed, but had become cancerous at its edges. The pylorus was wide open, and my gastro-enterostomy opening, which had been difficult to make, had almost closed. I have three times excised chronic ulcers, believing that they were cancerous, with recovery in the three cases and restoration to health in two. The death of the other from closure of the gastro-enterostomy opening which had to be made with a Murphy button, on account of the length of the operation, might have been perfectly well avoided by a subsequent operation. Twice I have excised what I thought were chronic ulcers to be apprised by the pathologist's report that they were cancerous, a condition which amply justifies excision. In movable, indurated, chronic ulcers, excision should be done; in adherent ulcers at the pylorus which appear malignant, excision is proper, but if the adhesions make the operation too dangerous, gastro-enterostomy is our only resort, and is often successful, because the appearance of malignancy is really due to the infiltration of the secondary tissue and adherent peritoneum, a condition which we have often met with in appendicitis.

The clinical history and laboratory findings may not be decisive, but in doubtful cases may be given a certain weight. I refer to the hyperacidity which is usually, but not always an indication of ulcer, and to the absence of hydrochloric acid, which is usually but not always indicative of carcinoma. Blood may be present in both conditions and does not help us.

Fortunately in certain cases of early cancer, and certain cases of ulcer, appearances are so characteristic as to admit of no doubt, but in my own experience the proportion of cases in which an absolute determination of malignancy could not be made, has been suprisingly large.

Cancer of The Stomach.

How many exploratory laparotomies have I done at the City Hospital on patients with gastric cancer, only to find a hopeless infiltration of the stomach, colon and liver with the disease presenting a picture hopeless of surgical relief! How many cases as we all know, run a latent course and present themeslves to the physician in a condition far advanced beyond the possibility of relief, and how many with gastric symptoms which should suggest cancer are treated by their physicians by medicines, X-rays, and what not, which, in this disease, are more than useless until they come to the surgeon too late for more than

the hopeless exploratory laparotomy. Yet in the past, the physician could not be blamed for not turning these cases over to the surgeon, for the reason that the mortality of radical surgical intervention, which means excision of the cancerous area with a generous surrounding portion of the stomach and the involved glands, was so high that few patients dared to risk it. But to-day it is time for the profession to realize that the work of the surgeons during the last forty years, has greatly changed the prospects of suffering from the dread disease. It may even be said in the words of that leader in American surgery, Dr. W. J. Mayo, that "in expert hands the results of the treatment of cancer of the stomach compare favorably with that of cancer of other portions of the body." Early operation in cases suspected, not known, to have cancer of the stomach, together with elaboration of the operative technique, have enabled us to accomplish remarkable results in this malady. If, in this disease, in which we must admit that medical treatment gives absolutely no promise of relief, the surgeon can present even a small percentage of successes, he has accomplished much and it can now be fairly said that stomach resection for cancer has a mortality not greatly higher than other abdominal operative procedures, and gives a fair percentage of cures.

For our knowledge of the operative possibilities of the disease, we are largely indebted to Dr. W. J. and Charles H. Mayo, and I shall quote freely in discussing the subject from Dr. Mayo's paper in the *Journal of the American Medical Association* for April, 1906. The first excision of a cancer of the stomach was performed by Pean in 1879, the first successful operation was by Billroth in 1891. Kocher and Billroth have been the pioneers in this branch of surgery. The death rate was high, however, and Billroth's mortality at the time of his death was over sixty per cent. Before 1890 the average mortality of British and American surgeons was seventy-six per cent. and after that twenty-eight and five-tenths per cent. In spite of this discouraging mortality, the work has been persisted in, until at length, the operative mortality in competent hands and in suitable cases is not far from ten per cent. The mortality of late cases exhausted by hæmorrhage and cachexia will still continue high.

The stomach with its thick walls and abundant blood supply lends itself favourably to operative repair. The blood supply can be tied off by ligating four arteries, just as that of the uterus can. Its thick walls make good holding for stitches and it is much easier to sew and manipulate than is the small intestine. The use of clamps makes it possible to resect the stomach and restore the communication between the remainder of it and the bowel practically without opening its lumen. With proper operating tools and asistants the operation may be clean, bloodless and safe, unless the growth is too extensive or the operation performed on patients weakened by starvation and loss of blood.

Now what are the possibilities of the operation? Mayo reported in his paper above alluded to, 100 resections of the stomach with fourteen deaths, fourteen per cent. In the last sixty-three cases there were six deaths or 9.5 per cent. The statistics of freedom from recurrence are very striking. A large number, of course, were operated upon too recently to be of value in this respect, but at the time his paper was published he had five cases living and well, over three years, or 22.7 per cent. of the eighteen who were operated upon over three years after date of operation. This is truly a remark-

able showing and one that should encourage us to renewed efforts in this field. A very important contribution to the freedom from recurrence has resulted from the studies of Cuneo, who found that the lymphatic glands of the greater curvature all lie to the left of a line continued downward along the natural course of the lesser curvature and that the lymphatics of the pyloric portion of the stomach drain to the right into the pyloric glands.

Hartman showed that in resection of the stomach for pyloric cancer the line of section in the greater curvature should be to the left of the lymph nodes. Mickulicz contributed the point that it is necessary to remove all the lesser curvature up to where the gastric artery joins it, and Kocher showed the desirability of removing the glands lying about the pylorus.

Now how are we to get hold of these cases early enough for radical operation? In this connection it is interesting to note that the Mayos found that only twenty-six per cent. of 313 cancers admitted to the hospital came early enough to permit of radical extirpation. The percentage in our hospitals in the east must be much smaller than this. Is there any way of making an early diagnosis except by an exploratory incision? This question we are reluctantly compelled to answer in the negative. The clinical symptoms together with the laboratory examination can establish a suspicion, and in suspicion of cancer of the stomach it is the duty of a conservative surgeon to operate. If a patient past middle life suffers from loss of weight and appetite without other reason than gastric disease, and especially if blood and absence of hydrochloric acid are demonstrated in the stomach contents, then we have to deal either with chronic ulcer or cancer of the stomach, and exploration without delay is indicated.

If obstruction of the pylorus causing delayed digestion and retention of food in the stomach is also present, then the evidence points to cancer of the pylorus, which is the form more amenable to operative relief. A history of old ulcer of the stomach confirms the suspicion of cancer, as it has been demonstrated by many observers that cancer develops upon an old ulcer as a base, and such a course of events is probably commoner than we think. It has been frequently remarked that the presence of a tumour is a contra-indication to operation. This is not the case, however, the fact should be noised abroad as loudly as possible, in order that patients in need of operation may not be kept from it because they have a small tumour which their physician in his student days has been taught is a contra-indication to operation. A small movable tumour is palpable early in the cases of cancer of the pylorus, the very class of cases which is most amenable to excision, so that the presence of a tumour may be a good rather than a bad sign. It is the pyloric cancers also that obstruct the food current early, so that in them we are most apt to make an early diagnosis, also a fortunate circumstanc in connection with this class of cases.

Another exploded notion is that older patients are less amenable to radical operation. Precisely the reverse is true, because the atrophy of the lymphatics which accompanies advancing years is less favourable both to rapid spread and recurrence. It is the young patients who have most to fear from recurrence after operation.

Now in regard to my own experience in the resection of the stomach for carcinoma. It has not been a

large one, but so far as it goes it has been confirmatory of the value and importance of the radical extirpation of cancers of the stomach, and in the hope that interest in the sufferers from this otherwise incurable disease may be stimulated, and that some hope may be held out to them, I am glad to submit it to you. I have resected the stomach eleven times, with two deaths or twenty per cent. Of these eleven cases seven were cancers and four chronic ulcers. This seems large but may be explained by the fact that the first case which was that of an early cancer of the pylorus, movable and in every way suitable for radical operation was performed several years ago, when my knowledge of the technique was somewhat rudimentary.

The second fatal case was a case in which the hopeless task of removing extensively involved glands around the head of the pancreas and extending upward along the common bile duct was attempted, an attempt to remove an inoperable disease after the case had progressed too far. It would have been better judgment to have been satisfied with a gastro-enterostomy. The fatality in this case ought not to influence us in estimating the fatality of operable cases. This brings out that in six cases of cancer of the stomach which could fairly be called operable cases, I have had one death, and two results which made the operation well worth while. I have resected the stomach three times for benign ulcer which was thought to be malignant. All recovered. I cannot help feeling encouraged by those cases. The operation is one which with proper tools ought to give no great anxiety. With holding clamps, careful attention to hæmostasis, the use of cautery along our cut edges and accurate suturing, the operation while not a simple one, presents no great difficulty. The only point which causes some difficulty is the suture of the cardiac end of the lesser curvature, and this can be easily managed by doing it last and removing the clamps just before it is done. The use of hot moist packs prevents infection from what little leakage there may be.

Two of these cases were operated on April, 1906; one was a man of 67 years, in whom a very extensive resection of two-thirds of the stomach was performed. After the operation, he had an excellent convalescence, gained twenty pounds in weight, continued in good health for six months, then health began to fail and he died one year ofter the operation. I also operated on, in April, 1906, a man of 54 years, who immediately began to gain and gained 40 pounds. Now two years and three months after the operation, he is in perfect health and able to eat and drink as much as anybody. The third case was operated on in February, 1907, and although the cancer was not very extensive and involved the lesser curvature, he was not greatly relieved by operation. He made some improvement the first two or three months, but rapidly began to fail and died the following August.

The fourth case was operated on in August, 1907, and although he was quite ill immediately after the operation, he began to gain and gained forty-six pounds. He established himself in business and was in good health up to March, 1908, when he began to fail and is now going down hill. The last case was operated on in April, a resection of about one-third of the stomach, and although he has made some gain his condition at the present time is not entirely satisfactory.

In these otherwise hopeless cases, to have gained one apparently complete case, and relief for varying periods in

several of the other six, seems to me, well worth while.

To sum up then in a sentence, what surgery can accomplish in diseases of the stomach I would say,

(1) In perforation, early operation usually saves life.

(2) In hæmorrhage from acute ulcer, it is of no avail.

(3) In hæmorrhage from chronic ulcer, it is usually curative.

(4) In stricture and chronic ulcer at the pylorus, surgery is our only means of cure, and gastro-enterostomy usually is efficient. In chronic ulcers elsewhere, excision is curative and usually required.

(5) In cancer, surgery is our only resource, and the results are in early cases encouraging.

SMALL-POX IN NEWFOUNDLAND.

To The Editor of The
Maritime Medical News:—

Sir,—Not long ago I noticed in a Canadian paper that small-pox of a very severe type is epidemic on the South Coast of Newfoundland at the present time. That small-pox does exist in some of the unimportant settlements of the South Coast is quite true, but that the type is SEVERE IS DECIDEDLY NOT TRUE.

When the disease was first seen by physicians, there was much doubt regarding the diagnosis, but now it is generally agreed that the disease is a very mild type of small-pox. So mild is it that the laity are not by any means concerned. In fact, they do not realize it is small-pox, and it is difficult to make them believe otherwise. Thus far the initial symptom shave been either *nil* or so mild as to require no treatment, and after the eruption appears those afflicted can go about their work as if nothing was the matter with them.

Several small localities on the South Coast have been visited by the disease, but always of the same mild type. No deaths have occurred and it is probable there have been on the whole about 200 cases.

Vaccinated persons are practically immune.

That this is the same disease that was described by Hodgetts of Ontario, Welch of Philadelphia, Bayard and others of the Province of New Brunswick, is very probable.

The features, as described by these men, are the same here.

The authorities are handling the situation by vaccination, thorough fumigation and isolation of the infected localities and before long the disease will be entirely under control.

It is unjust to Newfoundland to have a report go abroad that there is a severe type of small-pox epidemic here, when really the cases are of a very mild type and existing in places having little communication with the outside world.

J. J. O'Connell, M. D.
Harbor Briton, South Coast, Newfoundland.

ECONOMICS OF PREVENTION.

By S. I. WALKER, M. D.,

Truro, N. S.

(Read before the Halifax and Nova Scotia Branch B. M. S., February 3rd, 1909.)

THERE are men, and classes of men, that stand above the common herd: the soldier, "the sailor, and thes hepherd not in- "frequently; the artist rarely; rare- "lier still, the clergyman; the physi- "cian almost as a rule. He is the "flower (such as it is) of our civiliza- "tion; and when that stage of men is "done with, and only remembered to "be marveled at in history, he will be "thought to have shared as little as "any in the defects of the period, and "most notably exhibited in the vir- "tues of the race. Generosity he has, "such as is possible to those who prac- "tice an art, never to those who drive "a trade; discretion, tested by a hun- "dred secrets; tact, tried in a thou- "sand embarrassments; and what are "most important, Heraclean cheerful- "ness and courage. So it is that he "brings air and cheer into the sick- "room, and, often enough, though not "as often as he wishes, bring "healing."

So wrote Robert Louis Stevenson in dedicating a collection of his poems to Dr. Bradley Thomas Scott of Bournemouth.

A Viennese physician once wrote:

"The patient seeks aid which the "physician must know how to bring. "He must take away the results of the "sins of the parents, of ignorance, "and of excess. He must alleviate "the consequences of poverty, want "and misery, of grief and of despair. "The effects of heat and cold, of the "air and the water, of food and occu- "pation, of poison and violence, of "contagion, pestilence and old age, he "must ward off and render harmless. "He must always stand ready, cheer- ful and undismayed, a support to hu- "man infirmity, a guardian of life, "a source of health, and of the high- "est earthly happiness."

The tendency today along business lines is to monopoly, or control of the markets—to make business, or increase demand. But the medical profession, to a greater extent than any other, is giving the energy of its best men, not to increase the conditions that give a living to its members, but to decrease and exterminate those conditions. If there be one significant phase to the activity of the medical profession today, it may be said to be its incessant and insatiable activity to learn the causes of disease and death, to the sole end that disease and death may be prevented. Yet the public is too often doubtful and skeptical of our veracity and our motives, when we attempt to demonstrate that such is actually the case. And this because in daily practice, each busy with his own cares and responsibilities, we become isolated, or too often public attention is attracted to our minute differences, and not to our grand agreements, and we fail to present a united front to the public in this most important work in which we are engaged —Preventive Medicine.

This much hath been imputed to us, this much with all due modesty we claim as the inspiration of all our work. What then, along a few lines, has the public the right to expect from us? What shall the public do in order that this ideal work of the physician may become a reality? It is a question only of ethics to the Doc-

tor, but a question of life or death to the individual. Dr. Birrell, of Boston, in a recent presidential address before the American Medical Association, answers this question, holding that the public has the right of education in the scientific medicine of the present day. He thus develops the idea:—If it is true that the medical profession now has accepted facts that bear on the welfare of the people. is it not our duty to make them known. Judicious publicity is a new duty of the profession to the laity. Let us not be blind to the fact that our scope of usefulness as physicians, in dealing with the large disease problems, depends in great measure on the co-operation of the public. To secure this definite information must be given by the profession to the associate partners.

Along what lines will this information be given? Dr. Birrell again makes answer:—Tuberculosis is still the most pertinent subject on which information should be given. The work already accomplished by the public in co-operation with physicians in controlling Tuberculosis. Ophthalmia Neonatorium, Smallpox. Yellow Fever, etc., comes to every one's mind. When it is recognized and brought home to the public, that contagious diseases in children are to a degree unnecessary, that by proper sanitation and medical school inspection they may be in a large measure prevented, then people will demand that their little ones in public schools be, protected from disease which often leaves them invalided and crippled for life.

Then after dealing with the subjcet from an economic standpoint, and indicating those portions of the public who should be first educated, he concludes as follows:—"A great duty rests on the practitioner of medicine to-day. He must not shirk it, he must rise to his new burden, accept it and bear it. The reward to the profession for taking this new burden of judicious publicity in medicine, (which, you will observe, is practically all along the line of prevention of disease—S. L. W.) will be a broader life for the physician, a greater consideration for his fellowman, better citizenship and the recognition by the world that the medical profession is a great public benefactor."

So much for an ethical introduction. Now for a few economic considerations. And there never was a time when economic considerations should receive more attention than at the present time in these Maritime Provinces, not so much because of the present depression which has been world-wide, but on account of our especial relation to the United States and Western Canada. For years we furnished artisans, business men, domestic and other help to the Eastern States, and we deplored the Exodus. Recently, we have been sending business men, professional men, our young men and young women, to our glorious heritage in our own Canadian West. 'The West has thrown out its challenge to the young heroes and heroines of these Maritime Provinces and they are responding heartily to the noble call. They have discovered that there is something nobler than a narrow provincialism. They have caugtt the new spirit and are rejoicing in the fact that they are members of a new Empire.' This is fine rhetoric, (for we have quoted from a Presbyterian divine), to cover up, what is to us a lamentable fact, that these Maritime Provinces are being bled of their best blood to furnish brain and brawn for the rest of the Dominion. Such conditions as these make economic considerations of vital importance to us

at the present time. Especially true is this in regard to the part Tuberculosis takes in our industrial life. Our economists and statisticians have as yet given us few figures of local interest, but from those who have studied this subject in other countries much valuable information may be obtained.

Consumption is so costly to companies insuring against sickness, that in Germany, these companies find it pays to send 9,000 workingmen in a year to Consumptive Sanatoria, for an average of eleven weeks, at a cost of $7.50 per head per week, (total cost $765,000), in order to restore them to wage earning power. The German Imperial Insurance office reports that of every 1,000 German workmen, between the ages of twenty and thirty years, who are rendered unfit for work, 535 are rendered so because of Consumption. When the bread is taken from the mouths of those dependent upon German workmen, in more than 50 per cent. of the cases it is due to Tuberculosis.

It must be borne in mind that over 75 per cent. of the deaths from Consumption are bread-winners whose ages range from fifteen to fifty-five years, in this particular differing from other infectious diseases. Considering that Tuberculosis runs a number of years before it proves fatal, and that there is a lengthy period of nursing, medical attendance, food, etc., Cornet estimates that Consumption demands an annual increase of the tax of 3.09 marks for every man, woman and child in Prussia.

The English National Association for the Prevention of Consumption finds upon investigation that 1-11 of all pauperism, costing in England and Wales £10,000,000 a year, arises from Consumption; that one-quarter of all deaths during the wage-earning age are due to Consumption, leaving many widows and children to receive aid from poor laws, friendly societies and charity organizations. The average age at death of these Consumptives was thirty-two years. This is a loss of ten years of labor at an average wage power of £35 per year, a loss of £350 per life (equivalent to $1,700 per life). The 8,000 Consumptives in English Infirmaries cost £600,000 per year. To summairze:—Annual Death Rate in England and Wales from consumption, 60,000. Proportion of these wage earners, 75 per cent., 45,000. Ten year's loss of labor at £350 per life—£15,750,000.

Thus every year England and Wales pay a yearly tribute to this fell destroyer in loss of wages alone of £15,750,000, which would pay their entire bill for pauperism and leave nearly enough to distribute a pound to every man, woman, and child, in the City of London.

The Actuary of the Prudential Life Insurance Company states, that 150,000 die of Consumption in the United States each year, at an average age of thirty-five years. The natural life expectancy at this period is thirty-five years. If we then assume that the net value of a year of human life after the age of thirty-five years is at least $50, the real loss to the nation resulting from this disease is $250,000,000 per annum. This provides nothing for the cost of maintenance during a lengthy illness and loss of production for one or two years before death, or for public or other maintenance of those dependent upon these sufferers, so that the actual loss to the country and this added burden must make the total tribute to this disease at least double these figures. Osler estimates the loss of wages alone of bread-winners, suffering from Consumption, at $140,000,000 each year in the United

States alone; and he proceeds to say "the loss of $50,000,000 annually paid to foreign ship-owners, caused a ship subsidy bill to be considered calling for an annual expenditure of $9,000,000; yet here we have an annual loss three times as much in money, (and pain and suffering beyond description), but not one dollar is appropriated and not one step taken to remedy it."

Dr. H. W. Thomas, of Chicago, in 1903, computes that the loss of money in Illinois invested in the raising of children who die of Tuberculosis under the age of twenty years is $1,187,800; the loss from inability to perform labor on the part of Consumptives. $30,000,000; the loss of savings of those who die before the end of producing age, $5,139,000 ;and the cost of the care of those sick and comparatively helpless from Consumption. $225,000. Upon this accounting their Tuberculosis costs the State of Illinois yearly $36,551,000.

Apply these same conclusions to the United States as a whole, and this disease costs that nation the enormous sum of over 750 million of dollars each year.

Biggs who omits some of these considerations, as the amount of savings lessened, the cost of raising children who die under twenty years, makes the total direct loss to the United States from Tuberculosis 330 millions. A conservative conclusion would place this national loss at 500 millions each year.

For Canada it may be concluded that with 1-12 the population the same method of estimating would put our national loss at 40 million. These Maritime Provinces furnish 1-4 of the deaths in Canada, therefore we share in this loss to the extent of 10 millions each year. We can then safely agree with the famous actuary mentioned, when he says—"The mortality from Tuberculosis is therefore a problem, compared with which all other social problems of a medical character sink into insignificance, and it is safe to say that the possible prevention of a large portion of the mortality from this disease is justly deserving of the solicitude of all who have the real welfare of the people of this nation at heart."

Apply this system of calculation to these Maritime Provinces a little in detail with our 2,500 deaths each year from Tuberculosis. Consider the loss of wages, the cost of maintenance during a lengthy illness, the loss of savings to those who die before the completion of the wage earning period, and the loss of money invested in raising children who die under the age of twenty years, and Tuberculosis costs these three little provinces, with but 900,000 population, the enormous sum of over thirteen million dollars. Halifax alone with 113 deaths loses $590,000 each year. It costs us in Truro $78,000 each year. According to Dr. Philip, of Edinburgh, the ascertained mortality in any city from Consumption may be safely multiplied by twenty to represent approximately the number of living persons affected by the disease. This gives Halifax 2,260 cases, and Truro alone 300. Cut all these figures in two, and the cost is still alarming.

Then take again the economic side of the Smallpox question, and every county—even Halifax—has its undesirable record, from a financial standpoint, in an unsuccessful effort to stamp out the disease. Cumberland County, in one year saddled itself with a debt of $20,000, upon which coming generations must pay interest, to handle an epidemic of Smallpox, with but one death—(and it is not incurring one dollar of expense to lessen

94 deaths each year from Consumption). Practically no steps are being taken to prevent another epidemic of this disease—for only during such a scare is any effort made to secure a general vaccination, and I have yet to learn of any concerted effort being made to disinfect the lumber camps where the disease has so often started. Even in the Philipine Islands, where six thousand formerly died annually, there is not now a single death, and yet we have no general compulsory vaccination law in modern cultured Nova Scotia.

In towns and cities with pure water and a good sewerage, it is a disgrace to find cases of Typhoid, but last year in the town of Truro, upon the premises of two houses, such an absolute disregard of any effort at sanitation existed, that nine cases of Typhoid could be directly attributed to those conditions. The loss to the community from these cases totalled nearly $1,500. Closely related to this is the necessity of a good milk supply. I have often wondered what the health authorities in Halifax knew of the source of their milk supply along the line of railway between Halifax and Truro.

One important phase of preventive medicine concerns itself with Tuberculosis in childhood. Hamburger, in a German periodical, declares:—"That Tuberculosis is properly to be considered as much a disease of childhood as measles. The bacilli, entering the organism of children, may be confined in their action to local sites, or more rarely may produce a Tuberculous process through the body. Even if the disease enters a latent stage, soon after its beginning in the organism of the child, the appearance of Tuberculosis in adult age simply means the flaring up of the old process, and not at all a new infection with the bacilli. This explains the difference in the clinical pictures of Tuberculosis in the young and in the adult. The former very seldom are attacked by chronic pulmonary disease, but show localised lesions in the glands or a few separate lesions in the lungs. The typical Tuberculosis of the lungs, on the other hand, is due to the long stage of preparation for the spread of the infection, by the existence of latent disease or of a localised lesion. In a word, Pulmonary Tuberculosis must be looked upon simply as a recurrence of the Tuberculosis infection of childhood, and all the phenomena of the disease as due, not to the original influence of the bacilli alone, but much more to the changes in the organism produced by their presence for a long time."

Sachs, of Chicago, emphasizes the point, that the eradication of Tuberculosis in the human race can never be accomplished until the child is protected. In Belgium the work of prophylaxis in children is considered the most important of the entire campaign, and a Sanatorium for delicate children born of tuberculous parents, and rickety, strumous and lymphatic children, as well as those with internal tuberculosis, has been in existence for five years, and has amply justified its existence.

To accomplish this phase of the work medical inspection of schools must be most carefully carried out. Not alone must it concern itself with the eyes, ears, teeth, throats and skin of the children and general infectious diseases, but general debility and Tuberculosis must be kept in view. In Great Britain the present Education Act provides for this thorough inspection, and the British Journals contain many references to the details of the work. Several systems are employed in the United States, but only a small begin- Knopf make the following plea for

school inspection for tuberculous children:—

"The examination for tuberculosis or tuberculous predisposition of all children entering public schools, and the periodic re-examination for tuberculosis, should also be made a feature of an intelligent and thorough Tuberculosis campaign. The more attention we pay to avoiding tuberculosis infections during childhood, the more carefully we study the early recognition of a condition predisposing the child for consumption, the more we direct our energy to this end, and the more we interest philanthropic friends in the cause, the greater are our chances for ultimately eradicating the disease in the adult, and thus becoming complete masters of the Great White Plague."

From the schools it is but a short step to the consideration of conditions in the Home. The Housing Problem is of great importance to the Medical Profession. All civilized men spend one-third of their time indoors for sleep, and of all workers in various fields of human activity by far the greater number have indoor occupations. Dr. Kober of Washington says. "The primary object of habitations is to secure protection from the influences of heat, cold, rain, sunshine and storms, and thus promote Health and Happiness, and indirectly also the morals and culture of the human race." A readable article by Dr. Knopf emphasizes the part that Physicians should take in the effort to secure the most desirable habitations. Then akin to this comes the care of tuberculous inmates in Penitentiaries, Hospitals and Asylums, where the very fact of their confinement indoors exposes them to this disease.

Yet perhaps all this availeth nothing, if *Notification for Tuberculosis* is not made compulsory. For ten years. in New York City, physicians have been required to report their cases of Tuberculosis. Dr. Biggs, at the Tuberculosis Congress at Washington, demonstrated that the control of the disease had been much facilitated by the operation of two measures, i. e., the compulsory notification of cases of tuberculosis, and the removal, by force if necessary, to appropriate places of treatment of such tuberculous individuals as are a menace to their neighbors. The Board of Health did not interfere, if the consumptive was under the care of a private physician, but if this was not the case, all objection to the visitation and supervision of the health department was removed. Here the most effective work was done by visiting nurse or physician.

Dr. Hamel, Berlin, at the same Congress, argued stronly in favor of compulsory notification.

"The Local Government Board in England has issued an Order rendering compulsory the notification of cases of pulmonary tuberculosis by the medical officer of a Poor-law institution, and by the district medical officer, in the case of any poor person he is attending according to his agreement with the board of guardians. The notifications are to be made to the medical officer of health within forty-eight hours after the symptoms of pulmonary tuberculosis are first recognized. The remuneration will be at the rate of one shilling for every notification. The superintending officer of a Poor-law institution is required to post to the medical officer of health, a notification of the actual or intended place of destination, of any person leaving the institution, in respect of whom notification has been made, and the same obligation is laid upon the relieving officer, in the case of persons not in an institution, who may change their address. The Order is not to authorize any one to put into force any enactment which renders the person notified or any other person liable to a

penalty, or subjects him to any restriction, prohibition, or disability affecting him or his employment, occupation, means of livelihood, or residence, on the grounds of his suffering from pulmonary tuberculosis. The Order came into force on the first day of 1909."

Dr. Philip, in an inaugural address before the Edinburgh Sanitary Society, on the "Public Aspects of the Prevention of Tuberculosis," advocated a carefully organized and co-ordinated plan of action, which should include the following factors:

1. Notification of the disease.
2. A Tuberculosis Dispensary.
3. A hospital for dying patients.
4. A Sanatorium for selected patients, with a view to cure.
5. Colonies for the residence and guidance of patients in whom the disease is latent, or has been arrested and for whom carefully selected and supervised employment is desirable.

Notification of the disease seems to be the first natural and legitimate step. Halifax and a few of the largest towns have adopted this regulation to a limited extent only.

Briefly we may state a few of the requirements for a successful campaign in prevention of disease.

I. A systematic campaign of Education. First that we as physicians should fully realize our opportunities and duties in this work, and then, second, the education of the general public. This is to be done by means of lectures, by the publication in the press and in pamphlet form of many of our Societies' presidential addresses and their general distribution, by newspaper and magazine articles and the advertising pages of our papers. By the calling in of the absurd Health Readers, now in use in our schools, and the substitution of such as will teach genuine hygiene and sanitation. By the establishment in our Provincial Normal School, of an extended series of lectures on Public Health, the Sanitation of school buildings, the diseases of childhood, and special instruction to teachers so they can aid in this greatest of humanitarian efforts.

One of the best means of awakening a public interest in this matter would be the holding of a Tuberculosis Exhibit in connection with our next Provincial Exhibition. The recent exhibition held in New York was most widely advertised and was visited in seven weeks by 753,000 people.

II. After this public campaign is under way it will be necessary to have certain laws and regulations, enacted or so amended, as to properly carry on the work. We require in this direction:

1. A compulsory clause in the Health Act requiring notification of all cases of Tuberculosis.
2. A compulsory vaccination and re-vaccination law.
3. Compulsory notification for Typhoid Fever as well as Tuberculosis.
4. An amendment to the Vital Statistics Act that no burial permit be issued until a certificate has been signed by a qualified Practitioner, Medical Examiner or Coroner.
5. That certain fees be paid physicians for all certificates of notifications, including births and deaths.
6. That further amendment to the Statistics Act be made so incorporated towns will have a separate registrar, whose records shall be open to the Board of Health.
7. That the entire Act be amended so that its operation shall be in the hands of the Board of Health, or Health Department.
8. That a Provincial Department of Public Health be created—possibly associated with a Department of Agriculture.

9. That the Education Act be amended to require a general and comprehensive medical inspection of all schools and school children according to the best approved methods.

III. That provision be made for four or more municipal hospitals, for advanced cases of Tuberculosis, the expense to be borne by the Provincial Government and the municipalities on a fair basis. And that the Kentville Institution be at once placed upon a proper basis to care for incipient cases only, properly equipped and under the superintendency of a Specialist.

IV. That the various Boards of Health be required to secure District Nurses to give especial instruction in cases of tuberculosis where the patients cannot be removed to a suitable institution, as is carried out in Colchester County.

Numerous other matters will occur to the minds of all observers of present conditions, which should be dealt with in order to obtain the best results for the physical welfare of our population; questions relating to a pure food supply, to inspection of factories, the condition of boarding houses, the disinfection of public buildings, the care of feeble-minded children, questions relating to marriage of defectives and kindred subjects, but surely enough has been said.

Referring to Tuberculosis alone, Congressman Fassett of New York has said: "Tuberculosis, as a national disease ,invades more homes, destroys more lives, impairs more efficiency, costs more money, more agony and sorrow, than any other one preventable disease. Its suppression absolutely may not be expected, but its practical extermination may be confidently hoped for, if society moves along the lines already clearly laid out for it. The significance of the suppression of Tuberculosis cannot be adequately stated further than to say: 'In no known field of human enterprise would society reap so rich a harvest for its endeavors.'"

Gentlemen! What are we going to do about it?

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SOCIETY MEETINGS.

COLCHESTER-HANTS MEDICAL SOCIETY.

THE regular meeting was held at Windsor, N. S., February 16th, 1909.

Dr. E. D. McLean of Shubenacadie, was Chairman, and Dr. S. L. Walker acted as Secretary in the absence of Dr. H. V. Kent.

The principal paper of the evening was presented by Dr. L. M. Murray, of Halifax, being an excellent practical thesis on "Vaccines in Treatment," publication of which in the MARITIME MEDICAL NEWS was requested.

This society is greatly indebted to members of the Profession in Halifax and elsewhere for a number of papers each year, and would embrace this opportunity of publicly expressing our appreciation of the kindness of the several doctors who have addressed us at our regular meetings.

An earnest discussion regarding Reorganization of the Victoria General Hospital resulted in the adoption of the following resolution:

This Society having taken into consideration the paper read before it by Dr. N. E. MacKay at its November meeting on "Hospital Organization," and having considered the recommendations therein made and the present position of Victoria General Hospital, is of the opinion:

I. That the Victoria General Hospital ought to be reorganized in accordance with the most modern system.

II. That this Society respectfully requests the Provincial Government to take such steps as it may be advised to reorganize the Victoria General Hospital, and if it is considered necessary, before any plan is adopted that an independent commission be appointed, the majority of whose members shall not be members of the hospital medical board, to make recommendations and report.

III. That a copy of this resolution be transmitted to Honourable the Commissioner of Public Works and Mines.

Moved by Dr. McLean: seconded by Dr. J. S. McKay.

ANNAPOLIS-KINGS MEDICAL SOCIETY.

THE regular January meeting of above Society was held at Annapolis-Royal on January 28, 1909, Dr. G. E. DeWitt, President in the chair, and a fair attendance of members. Dr. W. B. Moore was appointed Secretary pro-tem in the absence of Dr. Read, the regular officer.

Dr. E. N. Payzant, of the Medical Committee on Biographical Sketches of the Early Practitioners of the Two Counties, reported progress, and on motion Dr. Payzant was appointed Historian of the Society for the purpose of gathering and recording information of the lives and experiences of the early physicians, to be preserved in the Annals of the Society.

The President refered to the desirability of having full and regular reports of the Society's meetings, published in the MARITIME MEDICAL NEWS.

In pursuance of the idea advanced some time ago that a paper upon some

subject of common interest to all the members, with full, free and comparatively exhaustive discussion, was preferable to a large number of papers with little discussion, Dr. L. R. Morse read a very complete paper upon Pneumonia. He traced the history of the disease very fully, and showed that while great advances had been made in diagnosis and pathology, reduction in mortality rate did not correspond, the death rate being still very high in many epidemics. It was recognized by most authorities as a general systemic infection, with different forms and varying localization of the infective process. The pathology was reviewed, and the symptoms and progress dwelt upon, with mode of onset of various complications and citation of cases. The diagnosis and varieties were exhaustively considered and the duration and period of resolution, were shown to be very variable.

Physical signs were considered, and while generally pronounced regular in development, were at other times most obscure and irregular. The treatment was fully considered, and the conclusion was reached that drugs and so-called specifics, were frequently disappointing in results, nor had ever accomplished all that was hoped. Fresh air and sunlight were considered most important. Cold applications in certain cases. Nutrition was of considerable importance, but too early stimulation was undesirable, strychnia and digitalis being relied upon when necessary.

Discussion:—Dr. W. S. Woodworth referred to the question of association of delayed resolution with tubercular processes also to the infectious character in proof of which cases were cited, and also stated that in his experience the type was much more severe in former times than at present.

Dr. Birt fully discussed the complications in pneumonia, and cited many rare cases showing different regions involved, one in particular coming under his own observation in Edinburgh, that of a young man who, about the period of crisis, developed first, a most severe and pronounced pericarditis, which nearly proved fatal, but improved under treatment, only to be followed by extensive empyema, requiring resection of ribs, but after a long convalescence, the case went on to recovery. He referred to the so-called ephemeral type, and deprecated the use of the confusing term, typhoid-pneumonia, on the ground that it was not a correct nor scientific nomenclature. He fully discussed the modern treatment, and referred among other measures to the value of normal saline solution, hypodermically and per rectum.

Dr. Burns discussed the blood changes and infections, and referred to the possibility of infection of food by mice as carriers of the infective agent. With reference to the treatment he described Galbraith's methods of giving large doses of quinine followed by Tinct Ferri.

Dr. W. B. Moore referred to the prevalence and danger of too early heart stimulation, and the superior effectiveness of the hypodermic method of administering cardiac tonics and stimulants when necessary. He expressed his belief in the further development of serum therapy to control the disease, and referred to recent excellent results reported in England from the use of bi-sulphide of carbon internally, and the value of the open air treatment in preference to the administration of oxygen.

Dr. Armstrong believed in the value of judicious stimulation, before the case was too far advanced, and also in the use of a proper dietary and local applications.

Dr. Morse, of Port Williams, cited a number of cases in his own experience to prove the value of blood-letting and blistering.

Dr. Payzant cited a case occurring in 1861 showing the value of open air treatment.

Dr. Byers referred to the value of the open air treatment and the use of early small doses increasing to very large doses of strychnia in the latter stages of the disease.

Dr. DeWitt referred to the value of phlebotomy in venous engorgement, which he has practised successfully for many years, and also laid stress upon eliminative treatment, the use of blisters and the desirability of treating the individuality of the patient, rather than the disease itself.

In the evening a public meeting was held in the Masonic Hall, presided over by the Mayor, Judge Owen. The audience which was large, intelligent and appreciative, showed much interest in the addresses delivered, which were upon the subject of Tuberculosis. Dr. DeWitt, President of the Society, who spoke first, reviewed the question with reference to the economic problems involved. (His address will appear in the MARITIME MEDICAL NEWS). Dr. Birt of Halifax, gave an account of the methods of the tuberculosis campaign as carried out by Dr. Philip of Edinburgh, a recognized authority on the subject. Dr. Woodworth, of the Provincial Sanatorium, described sanatorium methods. Dr. Byers advocated the establishment of Sanatoria and farm colonies.

Various ladies and gentlemen contributed to the success of the meeting with vocal and instrumental music, and the Annapolis-Kings Society is to be congratulated on thus enlisting the sympathy and aid of an intelligent public in the campaign against disease.

YORK AND SUNBURY MEDICAL SOCIETY OF NEW BRUNSWICK.

THE York and Sunbury County Medical Society of New Brunswick has recently been organized.

The regular meetings are to be held in Fredericton on the fourth Thursdays of January, March, May, September and November and the annual meeting is to be in January.

The officers for the present year are:
President—Dr. A. J. Muray
Vice-Pres.—Dr. J. W. Bridges
Sec. Treas.—Dr. McGrath
Executive Committee—Drs. Atherton, Crocket, Moorehouse, Murray and Moore.

The first meeting was held on the 28th of January and was chiefly taken up with the subject of organization, passing of bye-laws and election of officers. At the close of the meeting, the members, on the invitation of Drs., Vanwart, Irvine and Crocket, adjourned to the Washington Cafe, where they enjoyed an excellent supper.

OBITUARY.

JOHN FARQUHAR MACDONALD was born at Shubenacadie on the first of January, 1836. He was educated at the Normal School in Truro and at Dalhousie University. He began the study of medicine as a pupil of Dr. Tupper, now Sir Charles Tupper, and graduated from the University of Harvard in 1868. He settled at first at Elmsdale, in Halifax Co., but soon after moved to Hopewell, Pictou Co., where he remained until 1907, when he came to reside in Shubenacadie, where he died on the 4th of November last.

The Late Dr. John Farquhar MacDonald.

Dr. Macdonald was for many years one of the leading practitioners in Pictou County. He was an active and enthusiastic member of the County Society, and one, at least, of its most pleasant and memorable meetings was held under his hospitable roof. He was Secretary and Treasurer for some years.

Dr. Macdonald was greatly loved by his patients, and his bright and cheery manner brought hope and courage to many a sick-bed. He was a diligent student and kept himself informed on all the advances in the science of medicine.

He was especially well informed on the subject of tuberculosis, and read several papers before the Medical Society of Nova Scotia, on the prevention and treatment of this disease. But public interest in the subject had not then been aroused in the province, and Dr. Macdonald did not live to see the active campaign which is now being carried on and in which he would have rejoiced.

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DR. J. C. GOODWIN.

The news of the sudden death of Dr. J. C. Goodwin, of Meteghan, Digby Co., on February 14th, was received with genuine regret by his many friends in this city.

Dr. Goodwin was a graduate of Dalhousie University, after which he spent nearly a year on the interne staff of the Victoria General Hospital. He was of quiet demeanor and well liked by all his acquaintances.

Dr. Goodwin, although only thirty years of age, had a large practice in Meteghan and vicinity, and was held in high esteem by the profession in Digby County. Less than two years ago, he married May, daughter of the late John Delaney, of Halifax, who will have the sympathy of many friends in the city in her bereavement. The immediate cause of death was a complication of typhoid fever and pneumonia. Dr. Goodwin was a native of Weymouth, where his parents reside.

The NEWS extends its heartfelt sympathy to all the bereaved relatives.

DR. MANFRED H. MACDONALD.

It is with great regret we have to announce the death of Dr. Manfred H. Macdonald, of Hampstead, Queens County, N. B., which occurred on the 28th of February.

After an illness of a few months, while visiting friends in St. John, he passed away.

He was born in Queens County and was sixty-three years old. For thirty-five years he practised his profession in Hampstead and Wickham, where he was greatly beloved and respected.

Dr. Macdonald was a man of amiable disposition and besides his fine professional qualities was a poet of no mean ability. He leaves a widow and three children, and his untimely death will be regretted by many.

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DR. A. C. SMITH

We regret to record the death of Dr. A. C. Smith, of Tracadie, New Brunswick, which took place on the fourteenth of March.

In 1865, Dr. Smith was appointed Medical Officer of the Lazaretto in Tracadie, and during his term of office, considerable improvements were made at the Lazaretto.

Among other important changes a new hospital was erected some years ago.

Dr. Smith was 68 years of age and leaves a widow and two children.

CORRESPONDENCE.

A NOTE FROM DR. MACKAY.

To the Editor of the M. M. News:—

Sir,—In my letter in the last number of your journal, the word "unanimously" in the third paragraph should be "anonymously" and in the second last paragraph, "Then there was a contract, etc., etc.," should read "That there was a contract, etc., etc., breach of one implies this."

Don't you think it would have shown less bias if you had put the foot note to the attack instead of to the reply?

N. E. MacKay.

Halifax, March 25th, 1909.

Editors' Note:—In Dr. MacKay's elaborate and trenchant criticism of the management of the Victoria General Hospital, he made certain statements which some of his colleagues considered as "unpleasant personalities." The News made no comment on these. When one of the hospital staff replied to Dr. MacKay's criticisms, he used expressions which to some of our readers appeared unnecessarily bitter. But the News made no comment. The News is not biased. And it hoped that the "unpleasantness" so far as its columns were concerned, was at an end. But Dr. MacKay considered it incumbent on him to continue the discussion, and he has characterized the letter of his opponent as a "low and scurrilous attack." The News has never been, and does not propose to be, a vehicle for low and scurrilous attacks.

Bitter and irritating the letter may have been, but not, in the judgment of the News, low and scurrilous. And our foot-note was inserted not with any desire to wound Dr. MacKay's feelings, but to indicate to any who might wish to continue the correspondence that some regard must be paid to the amenities of debate, and to remind them that the invitation in our columns was to discuss the subject of Dr. MacKay's paper.

DR. MADER REPLIES AGAIN TO DR. MACKAY.

To the Editor of the MARITIME MEDICAL NEWS:

SIR,—To the half denial by Dr. McKay of but a few of the misdeeds that I have laid to his door in my letter published in your January issue, I wish to say that I was most careful to confine myself to facts that could be easily proved. I did not say that he attacked the hospital over his own name or by a nom de plume in the public press. He need not so boldly deny what no one accused him of. It is generally known that in his endeavours to ruin the reputation of his colleagues he works in a more underhand way than this, but his hand can usually be seen and recognized all the way along. I have had no connection with the Lively case whatever, but I well remember he did appear at least on one occasion in the public press over his own signature and against his colleagues in connection with that case.

Dr. McKay complains that I dealt too severely with him in my letter. I am sorry for that, but to a man, the medical men who have spoken to me on the subject have criticized my letter as being entirely too mild.

He suggests that I reflected on his colleagues whose names are mentioned in my letter. The incorrectness of this statement must be apparent to every one who has read my letter.

Dr. McKay accuses me of horn-blowing. Well, he ought to know about that as he is certainly a past master in that art himself. I call to witness any readers who have seen his portrait in the advertising columns of our daily papers time and again—the last time with this inscription beneath: "Dr. N. E. McKay, thrice elected chairman of the Board of Health," but alas, he will not again appear in that capacity as he has been practically "fired" from that potent position for advertising himself in the public press.

Dr. McKay informs your readers in his 24-column paper on hospital organization that the reports of the Victoria General Hospital are worthless, but in his letter in your last issue he uses them as infallible evidence, and that negatively. There could not have been a fistula in connection with the case before the records of the hospital showed it How under the sun can the records of a hospital on a point of diagnosis be in advance of the surgeon in whose service they are made?

Dr. McKay reports points of evidence in the McKenzie case, but he only uses that part that no member of the commission or anybody else who has common honesty and has taken the trouble to look into the case, could possibly believe, as they are at such variance with the other evidence of the case with anatomical facts and common sense.

What about Dr. McKay's own testimony on that case? Dr. McKenzie, who carefully examined the patient previous to her first coming to the hospital, found evidence of an opening into the intestine from the discharge of pus per rectum. Dr. McKay says that no such opening existed when he took over the case. He says that the patient was much improved and able to be up and about the ward when he passed her over to Dr. Hogan. Dr. Hogan's evidence shows her a very ill woman at that time, in bed, with fever, rapid pulse, etc.

Now, both Dr. McKenzie's and Dr. Hogan's evidence are open, frank and free from bias, and no one would dare to dispute one word that these men have said. Dr. McKay's evidence, however, shows bias all the way through, and besides disagreeing with Dr. Hogan, under oath, on the condition of the patient, he volunteers expert testimony which, if true, would falsify every text book which deals with the subject in the English language.

The fistula may not have been very much in evidence at the time the patient was treated in Dr. Hogan's ward. He made no special examination for fistula and did not suspect it. I do not think I would have made

a special examination myself at that time, but when the patient came to me over a year later with still the loathsome sinus discharging, appealing for relief, I did think of and find evidence of fistula and applied the test suggested by Kelly and other authorities of injecting fluid (preferably colored fluid) in the colon when the same appeared per vagina. The method of injecting saline per rectum was carried out as a method of treatment as suggested by Kelly and other authorities.

Now Dr. McKay takes the stand and says that there never was such a case. The patient had no fistula. Ah, but after reading the evidence of the nurses etc., he now changes his tactics. He now says it was produced by caustics; yet he applied the same stimulative substances to the sinus one year before, and he gives evidence that at that time there could be no danger in this treatment as the wall was now firm enough.

Dr. McKay complains that he was not given a chance to examine the specimen at the investigation. This must be an after thought. He had a lawyer to conduct his case and spent his whole time coaching him. Why did he not have his expert (himself) recalled to give evidence on the specimen? I certainly could not be expected to draw out a witness who was capable of giving evidence to suit his own desires and at such variance with truthful and unbiased witnesses as above noted.

Dr. McKay says that no properly constituted court would have admitted as evidence a specimen which had been in possession of the defendant; that no one knew except Dr. Mader where the specimen came from. This might "go down" with a layman who has not the time or ability to look into the case, but what nonsense to publish in a letter to medical readers. The specimen was removed at the autopsy by the intern pathologist in the presence of the operator and assistant. That a fistula produced by disease was present, was admitted by all. The specimen, without being longitudinally divided, was placed in formaline solution by the acting pathologist. As false and damaging reports had been circulated to the effect that the intestine had been accidentally perforated at the time of the operation, the operator took pains to guard the specimen from puncture by a malignant individual. He immediately called a council of his most eminent colleagues to examine and report on the specimen, inviting the chief assistant and consultant at the operation to take part. The latter, however, failed to attend. At this meeting the intestine was divided longitudinally by Dr. Anderson and carefully examined by the medical men present, who found no evidence of injury to the organ except that produced by disease. The specimen was replaced in the formaline solution and produced again at the investigation and identified by Dr. Anderson.

Now, considering the character of the men composing that council, and the rarity of the specimen, making substitution a practical impossibility, how could the identification have been more complete? The specimen was, after all, quite unnecessary at the investigation; the diagnosis was proved at the investigation without the aid of the specimen. The council who examined the specimen when fresh testified to the absence of instrumental puncture. The nurses' evidence absolutely proves the diagnosis, so neither my own evidence nor the specimen was necessary, as the false charge had been doubly disproved before.

Dr. McKay would like your readers to believe that I am as unpopular in Halifax as he is himself. God forbid! I hope that man will never be born. He asks how many of the medical board are favorable to my promotion? He will find their names appended to a document which has been in the hands of the honourable commissioner a year or more, and they include the majority of that board; also the names of the most prominent members of the profession of this city who are not members of the board. Also many prominent members of the profession

of this province outside of this city. Had Dr. McKay such a recommendation when he entered on his career in the Victoria General Hospital? Did he not violate every principle of honor when he jumped his contract with the late Dr. Farrell and accepted a position on the hospital at the time when the board was fighting for a principle in which his partner, Dr. Farrell, was most active? Was not the whole profession against him at that time? Are they not now asking in the interest of peace that he be removed from the hospital staff?

Dr. McKay admits that he opposed my appointment to the hospital staff, and I consider this a first-class recommendation since he has blocked the entrance to that institution of some of the best men in our profession who have practised here during the past two decades. For more than five years, four-fifths of the executive were favourable to my appointment and I never got the position that belonged to me.

Dr. McKay is anxious to have it widely known that I am on unfriendly terms with another member of the medical board. That we had an agreement about private practice, about college work, and about hospital work, etc., and that the agreement was broken and that a suit is pending; he asks me to explain this case to your readers. How infantile! Explain my case before it reaches the ears of the judge!

I wish to state that no agreement of any kind was made by me with any member of the hospital staff previous to my appointment to that staff. Neither did I seek the assistance of any member of that staff at that time to procure an appointment. After having, with Dr. Foster, been a member of the surgical staff for several years, and the government continuing to neglect to define or make by-laws by which we could legally work in the hospital, there was nothing for us to do but make an agreement with individual members of the staff for a division of the work. For my part I made an agreement with a member of the surgical staff who is some years my junior as an operating surgeon, though many years my senior as a general practitioner. This gentleman considered myself an equal as a surgeon and we had been able to work together amicably for fifteen years in other spheres of professional labor in this city. The division of labor made by the four men concerned had the approval of the commissioner and the work went on harmoniously, and had it not been for the old quarrel that had been waging among the surgeons of the hospital about the Lively case which caused the board to depose Dr. McKay from the position of president of that board on motion of Dr. Hogan, who clearly pointed out the reason to be that of unprofessional conduct on the part of Dr. McKay in the Lively case—I say, were it not for these facts, which did not concern me, but did the man with whom I was associated, the McKenzie case would never have been heard of. By skillful manipulation of false statements he succeeded in causing a rupture of friendship between the two members referred to, and now he desires to make capital for himself out of it.

Why did not the government define the duties of the assistant attending surgeons? Because Dr. McKay was able to prevent them doing so. Why did not the government appoint a competent pathologist a couple of years ago when the same was so warmly recommended by the medical board? Because of the minority report of Dr. McKay. There is no doubt that the good men who compose the executive of the Nova Scotia Government are desirous to do the best for the hospital and the suffering poor to which it so graciously ministers; but somehow this man McKay can put his finger on a button and can keep the executive paralyzed for years at a time. The doctor intimates in his letter that he still has his finger on the button and will still hamper the government in its efforts to do right.

Thanking you for this space, I am,

Yours respectfully,

A. I. Mader.

FOR IDLE MOMENTS.

AFTER ALL.

You're the butt of many a joke,
Doctor-man:
We hand you many a poke,
Doctor-man:
But when we're feeling ill
We're not satisfied until
We've partaken of your pill,
Doctor-man.

That your ignorance is great,
Doctor-man,
We very freely state,
Doctor-man.
But when the microbes on us land,
And the germs have us unmanned,
We'd have you close at hand,
Doctor-man.

We meet your bill with squalls,
Doctor-man;
Charge you with needless calls,
Doctor-man:
But if baby's taken sick,
Or Marjorie or Dick,
We forget it mighty quick,
Doctor-man.

So, in spite of all our slams,
Doctor-man,
And funny epigrams,
Doctor-man,
And though frequently we doubt you,
And say mean things about you,
We can hardly do without you,
Doctor-man.

—*Toledo Blade.*

⁂ ⁂ ⁂

In parts of Alaska is found a kind of fish that makes a capital candle when it is dried. The tail of the fish is stuck into a crack of a wooden table to hold it upright, and its nose is lighted. It gives a good, steady light of three-candle power, and considerable heat, and will burn for about three hours.

A CELEBRATED Scotch divine had just risen up in the pulpit to lead the congregation in prayer, when a gentleman in front of the gallery took out his handkerchief to wipe the dust from his brow, forgetting that a pack of cards was wrapped up in it. The whole pack was scattered over the floor of the gallery. The minister could not resist a sarcasm, solemn as the act was in which he was about to engage. "Och, mon, mon! sure your psalm-buik has been ill-bound."

⁂ ⁂ ⁂

"DON'T take it so hard, Mr. Playman," said the young woman mockingly. "There are other girls, you know. There's Jessie Jones, Agnes Jackson, Lil. Smithson, and Fan Robertson. Any one of them would make a better wife for you than I would." "I know it," he said, swallowing a lump in his throat, and turning to go. "If any one of those four girls had said 'Yes,' do you suppose I would ever have thought of coming here for a wife?"

⁂ ⁂ ⁂

AT A CRICKET MATCH one of the players was wearing a rather large straw hat, and one of the spectators thought he would have a little joke. When the batsman was going down the pavilion steps to take his innings, the would-be joker shouted at the top of his voice, "I say, mate, has ta stolen th' donkey's bedding?" "Yes," came back the prompt reply, in a still louder voice; "but don't worry, lad, tha can have it back when A'm out!"

⁂ ⁂ ⁂

A FEW days ago a woman brought her two children to my office for treatment. She was accompanied by her niece. After prescribing for the children, the mother wished me to prescribe for her and then finally for the niece. Just at this time the father, who had been having some nasal catarrh, came into the office and wanted to know if he could put his nose in for the same price.

A. AUSTIN BECKER, M. D.

Lactopeptine Tablets

A cleanly, convenient and very palatable method of administering Lactopeptine, especially for ambulant patients.

The tart, pineapple flavor, renders these tablets as acceptable as confections. They are particularly valuable as "After Dinner Tablets," to prevent or relieve pain or distension occurring after a heavy meal.

EACH TABLET CONTAINS 5 GRAINS LACTOPEPTINE.

SAMPLES FREE TO MEDICAL MEN.

NEW YORK PHARMACAL ASSOCIATION
88 Wellington Street West TORONTO Ont.

Liquid Peptonoids
WITH CREOSOTE

Combines in a palatable form the antiseptic and anti-tubercular properties of Creosote with the nutrient and reconstructive virtues of Liquid Peptonoids. Each tablespoonful contains two minims of pure Beechwood Creosote and one minim of Guaiacol

DOSE—One to two tablespoonfuls three to six times a day.

The **ARLINGTON CHEMICAL COMPANY,**
TORONTO, Ont.

Borolyptol

A highly efficient (non-acid) antiseptic solution, of pleasant balsamic taste and odor. Absolutely free from toxic or irritant properties, and does not stain hands or clothing.

Formaldehyde, 0.2 per cent.
Aceto-Boro-Glyceride, 5 per cent.
Pinus Pumilio,
Eucalyptus,
Myrrh,
Storax,
Benzoin,
} Active balsamic constituents.

SAMPLE AND LITERATURE ON APPLICATION.

The **PALISADE MANUFACTURING COMPANY**
88 Wellington Street West, TORONTO, Ont,

NOTES ON SPECIALTIES.

FUNCTIONAL NEUROTIC DISORDERS

The various vital functions of the organism are so intimately associated and correlated that it is impossible to definitely attribute any chronic nervous illness to disease or derangement of *but one* of the great bodily systems, i. e., circulatory, respiratory, digestive, lymphatic or nervous. The many neurotic conditions which the physician is so frequently called upon to treat cannot be successfully attacked by confining treatment to the nervous system exclusively, any more than can the cutaneous affections—acne, eczema or urticaria, be permanently relieved by lotions, washes and unguents alone. Neurasthenia, Nervous "Breakdown," Nervous Prostration, "Brain-fag" and allied states are usually but neurotic manifestations of some constitutional metabolic fault, which must be sought out and remedied if intelligent therapy is to be applied. Among the various pathologic conditions which oppose the relief of neural disorders, Anemia, whether primary or secondary, is always worthy of therapeutic attention. Unless the blood supply is relatively normal in both quantity and integrity, its oxygen-carrying capacity is "below par" and, consequently, metabolic exchange and interchange is embarassed and the necessary improvement in bodily nutrition is difficult to accomplish. Pepto-Mangan (Gude) stimulates and encourages oxygenation and nutrition, by furnishing the more or less impoverished blood with an immediately appropriate form of its

Glyco-Thymoline

IS INDICATED FOR

CATARRHAL CONDITIONS

Nasal, Throat, Intestinal, Stomach, Rectal, and Utero-Vaginal.

SAMPLES ON APPLICATION.

KRESS & OWEN COMPANY
210 Fulton St, NEW YORK

AMENORRHEA

Whether from shock, exposure or ot hercauses the menstrual flow is scanty or suppressed, the administration of Hayden's Viburum Compound will invariably effect relief. Its action is to normalize pelvic circulation, and in anemic or debilitated subjects, its administration just preceding each monthly epoch will restore the reproductive system to its proper condition.

HAYDEN'S is the standard Viburnum Compound by which all others would measure. Samples and literature on request.

When you prescribe Hayden's Viburnum Compound, see that the genuine and not a substitute is taken, if you want definite results.

New York Pharmaceutical Co., Bedford Springs, Bedford, Mass.

LYMANS, Limited

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Scientific Apparatus of Every Desciption

COMPLETE EQUIPMENTS FOR

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AS A SAFE INVESTMENT

Corporation Bonds offer a convenient medium for the investment of funds not subject to the restriction of trustee investments and usually yield a better return than municipal debentures or real estate mortgages.

These bonds while not offering equal security to Government and Municipal issues are usually absolutely safe, and by reason of their higher income and good security, are at all times in demand by discerning investors.

A ready market or availability as collateral for temporary loans are among the advantages of this class of security.

All issues handled by us are carefully examined as to

LEGALITY—The rights and obligations of both borrower and lender are clearly set forth in a registered deed of trust, and the trustee is generally a trust company of undoubted integrity and strength.

STABILITY—These bonds are usually a first mortgage upon going concerns with large surplus earnings over bond interest.

YIELD—From 5 1-4 to 6 3-8 p. c.

A list of investment offerings furnished on application.

J. C. Mackintosh & Co.

Member Montreal Stock Exchange
Direct Private Wires

HALIFAX, N. S., - ST. JOHN, N. B.

vital metallic elements, iron and manganese. The vital stimulus thus imparted is often the one thing needful to initiate the substantial systemic "building up" process which must precede the desired recovery from neurotic disorders.

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ETIOLOGY AND TREATMENT OF NEURALGIA.

John S. Moreman, M. D., in writing under the above title says:—In general terms, I may say, neuralgia is the outgrowth of any disease process which tends to diminish the vital forces, and to deprive the tissues of an adequate supply of nourishment, or such nourishment as is necessary to keep the tissues adequately in repair. When the tissues are inadequately nourished, their vigor and power of resistance is lost, and the establishment of neuralgia may supervene at any time. We may expect to see neuralgia proceed from a lowered physical power incident upon constitutional syphilis and also upon exposure to malarial infection. In fact, malarial influence is a most potent factor in the production of neuralgia.

The treatment of neuralgia comprehends local applications of various

DOCTOR'S

BRASS SIGNS

& RUBY GLASS SIGNS

C. BOOTH & SON

21 Adelaide St. W., Toronto

BLOOD DYSCRASIA

BLOOD DYSCRASIA as a pathological entity is as indefinable as ever. But recent physiological studies have emphasized anew the part played by certain constituents of the blood as protective, restorative and reparative forces. Modern therapeusis, therefore, finds a fundamental utility in the correction of any variation or deficiency of these forces. **Herein lies the special value of ECTHOL**— an eligible preparation of selected *Echinacea Angustifolia* and *Thuja Occidentalis*, presenting in potent form a remedy of uncommon anti-morbific power.

When other remedies of the so-called alterative type fail to exert the slightest effect in the various forms of blood dyscrasia, **ECTHOL** may be depended upon to promptly produce tangible results.

BATTLE & COMPANY

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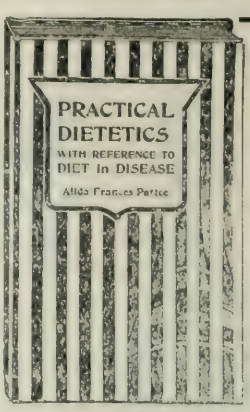

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